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# CITY OF MORENO VALLEY

## GENERAL PLAN

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### PREPARED BY

PLANNING NETWORK

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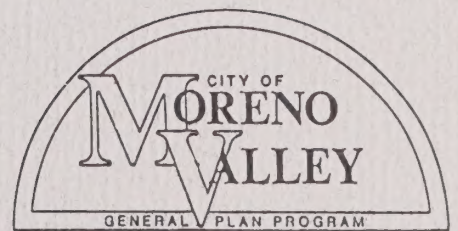
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## GENERAL GOALS

The following is intended as a broadly drawn statement of basic community values providing the foundation upon which the Moreno Valley General Plan is based.

*IT IS THE ULTIMATE GOAL OF THE CITY OF MORENO VALLEY TO ACHIEVE A COMMUNITY WHICH:*

- Provides a diverse mix and balance of residential, commercial, and industrial uses which provide significant local employment opportunities for Moreno Valley residents, adequate municipal revenue to support high levels of public services and facilities, and a quality living and working environment.
- Accommodates a balance and variety of urban and rural lifestyles, providing the best possible living environment for all residents.
- Emphasizes the unique characteristics and identity of the community of Moreno Valley.
- Encompasses the amenities, services, and facilities desired by Moreno Valley residents and businesses.
- Provides a healthy economic climate consistent with the maintenance of quality natural and built environments.
- Balances immediate needs with long-term opportunities and potential.





# LAND USE

## LEGEND

### RESIDENTIAL

- HILLSIDE DELINEATION LINE AND TRANSITION AREA
- HILLSIDE RESIDENTIAL (DU/AC Based On Slope)
- RESIDENTIAL MAX 1 DU/2 1/2 AC
- RESIDENTIAL UP TO 1 DU/AC
- RESIDENTIAL UP TO 2 DU/AC
- RESIDENTIAL UP TO 3 DU/AC
- RESIDENTIAL MAX. 5 DU/AC THRESHOLD 4 DU/AC
- RESIDENTIAL MAX. 10 DU/AC THRESHOLD 8 DU/AC
- RESIDENTIAL MAX. 15 DU/AC THRESHOLD 12 DU/AC
- RESIDENTIAL MAX. 20 DU/AC THRESHOLD 16 DU/AC

### INDUSTRIAL

- INDUSTRIAL
- BUSINESS PARK

### SPECIFIC PLANS

- ADOPTED SPECIFIC PLAN

### MIXED USES

- PLANNED RESIDENTIAL
- PLANNED COMMERCIAL
- PLANNED INDUSTRIAL

### PUBLIC & QUASI-PUBLIC

- AGRICULTURE
- SCHOOLS
- PUBLIC / SCHOOLS
- POTENTIAL CIVIC SITE

### OPEN SPACES

- FLOODPLAIN
- GENERAL OPEN SPACE (Natural & Developed)
- PROPOSED FOR POTENTIAL PUBLIC USE

### COMMERCIAL

- VILLAGE COMMERCIAL
- NEIGHBORHOOD COMMERCIAL
- COMMUNITY COMMERCIAL
- OFFICE
- TOURIST RECREATION/COMMERCIAL
- CONTINGENT UPON FWY ACCESS AT LASSELLE

- VILLAGE AT SUNNYMEAD (SEE POLICY 41.5)

- CIVIC CENTER-NASON / MORENO BEACH CORRIDOR (SEE POLICY 41.16)

- STATE ROUTE 60 STUDY AREA (SEE PUBLIC HEALTH AND SAFETY ELEMENT IMPLEMENTATION PROGRAM # 10)

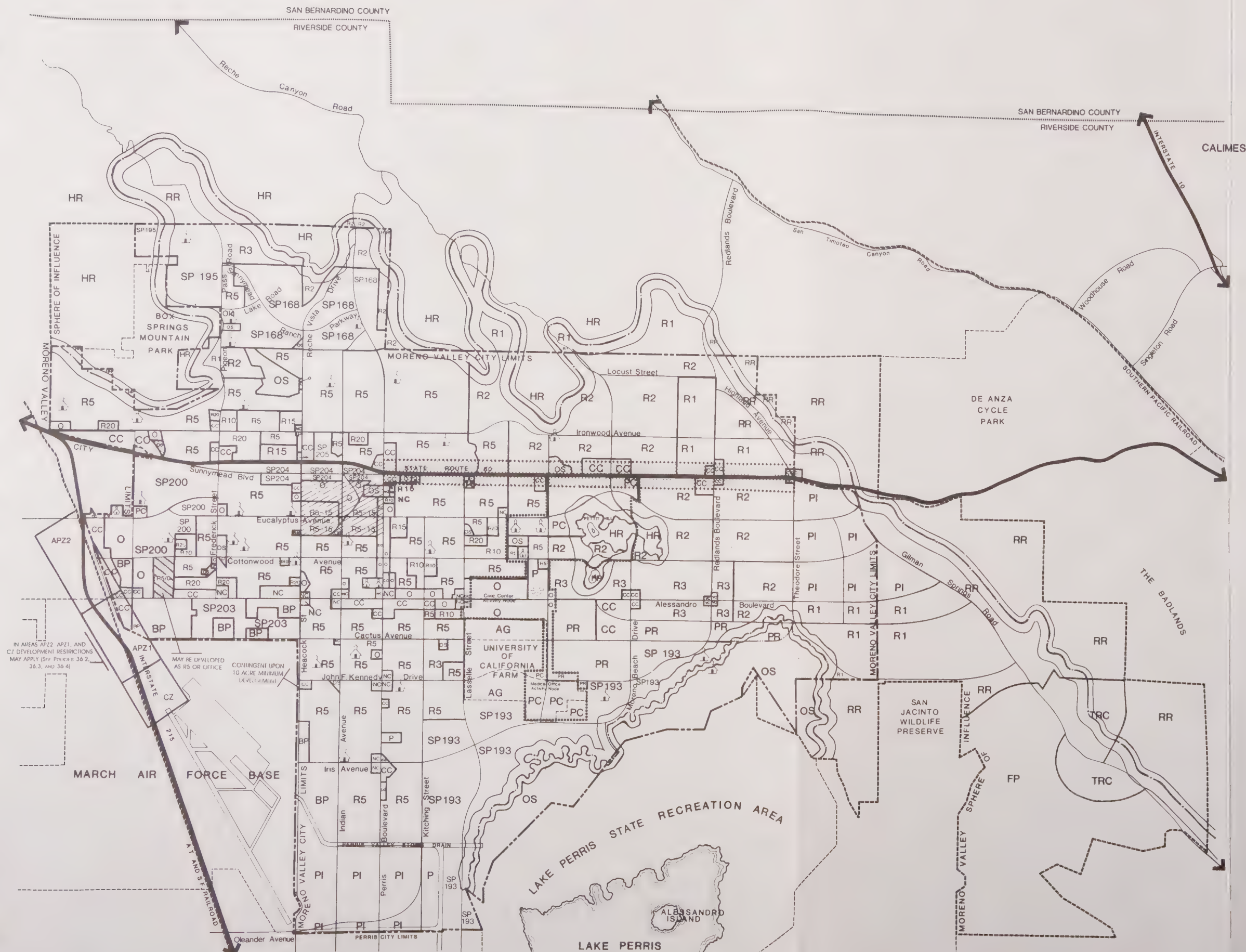
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*Patty Goodwin*  
PATRY GOODWIN, MAYOR

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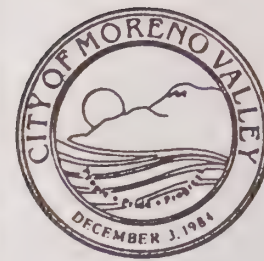


IN AREAS AP22, AP21, AND  
CZ DEVELOPMENT RESTRICTIONS  
MAY APPLY (SEE POLICIES 36.2,  
36.3, AND 36.4)

MAY BE DEVELOPED  
AS RS OR OFFICE  
CONTINGENT UPON  
10 ACRE MINIMUM  
DEVELOPMENT










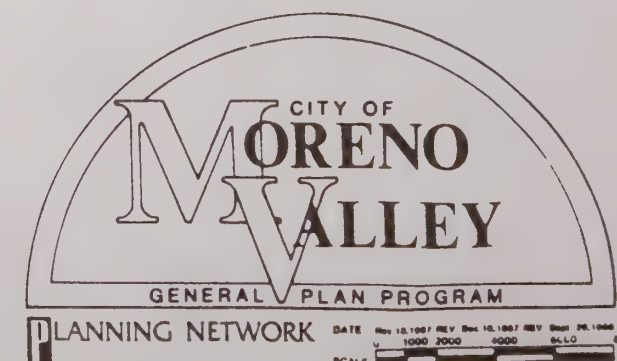




## CIRCULATION

### LEGEND

STREET CLASSIFICATION	WIDTH*	CAPACITY**
 FREEWAY	N/A	115,000
 DIVIDED MAJOR ARTERIAL	134'/110' 110'/86'	45,000
 MAJOR ARTERIAL	100'/76'	30,000
 MINOR ARTERIAL	88'/64'	20,000
 COLLECTOR	78'/56' 66'/44'	10,000
 SCAG REGIONAL TRANSPORTATION CORRIDOR (PROPOSED)	* R.O.W. / PAVEMENT ** VEHICLES PER DAY	
 FREEWAY INTERCHANGE		

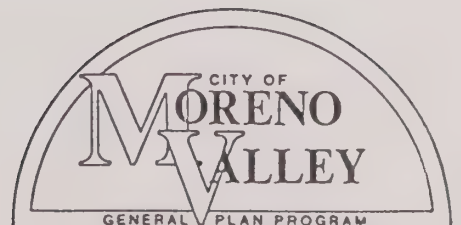






# I. INTRODUCTION

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## I. INTRODUCTION

### A. GENERAL PLANS AND STATE REQUIREMENTS

#### 1. WHAT IS A GENERAL PLAN?

A general plan is, in its simplest form, a statement by local citizens of what is in the best interests of their community. A general plan is a City's statement of its vision for its own future. This view of the future is a compilation of a system of basic community values, ideals, and aspirations as to how its natural and manmade environments should be organized and managed.

The general plan functions as a guide to the type of community that is desired for the future, and provides the means by which the community may achieve that desired future. The plan expresses in report and map form the organization of physical, economic, and social activities sought by the community to create and maintain a functional, healthful, and desirable place in which to live. The plan is thus a tool for the management of the future.

Local agencies, including cities and counties, are required by state law to adopt general plans. Section 65300 of the California Government Code states:

"Each planning agency shall prepare and the legislative body shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning."

Section 65302 of the California Government Code requires that general plans contain seven elements, or sections, addressing specified issues. However, a general plan need not be organized into these seven elements, so long as the issues

required by state law are discussed within the document. The seven elements required by the state are:

**A Land Use Element** which designates the proposed general distribution, location, and extent (including standards for population density and building intensity) of the uses of the land for housing, business, industry, open space, education, public buildings, solid and liquid waste disposal facilities, and other categories of public and private use.

**A Circulation Element** consisting of plans for the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other public utilities and facilities.

**A Housing Element** consisting of standards and plans for the improvement of housing, and the provision of adequate sites for housing to meet the needs of all economic segments of the community.

**A Conservation Element** for the conservation, development, and utilization of natural resources.

**An Open Space Element** identifying plans and measures for the preservation of open space for 1) natural resources, 2) the managed production of resources, 3) outdoor recreation, and 4) public health and safety.

**A Noise Element** which specifies and appraises noise problems in the community, and which establishes standards for setting noise compatible land use.

**A Safety Element** for the protection of the community from any unreasonable risks related to natural and man-made hazards. The safety element includes mapping of known seismic and other geologic hazards.

The General Plan Guidelines prepared by the California Office of Planning and Research permit the consolidation of the information, plans and



programs of these seven elements into a smaller number of functional issue areas. Thus, the Moreno Valley General Plan has been organized into four elements as follows:

**Environmental Resources Element:** contains a description of the natural and man-induced environment within the Moreno Valley General Plan study area. The issues discussed in this element can be identified as those suitable for certain levels of maintenance and protection. Specific topics include: soils, water resources, biological resources, and energy facilities and usage.

**Public Health and Safety Element:** contains an evaluation of natural and man-made environmental issues which may constitute certain levels of health and safety hazard to the public. Specific topics include geology and seismicity, flood hazards, noise, air quality, crime prevention services, fire hazards and prevention services, hazardous materials, emergency services and aircraft crash hazards.

**Community and Cultural Resources Element:** evaluates the various community and cultural amenities and services which are critical to the establishment of a desirable living environment. Specific topics include aesthetic resources, landform and topography, open space, historical and archaeological resources, school facilities, parks and recreation, and library and other social services.

**Community Development Element:** evaluates the population, housing, employment and economic base, and land use characteristics of the community, as well as the infrastructure needed to support present and future land uses within the planning area. Specific topics include population characteristics (growth trends, population, age, ethnicity), housing and household characteristics (residential market, dwelling unit types, housing conditions, occupancy, housing price, overpayment), employment and economic development, land use, water systems, wastewater systems, transportation (freeways and roadways, public transit, bicycle, pedestrian, and equestrian), solid waste systems, and public facilities and buildings.

## 2. GENERAL PLAN GOALS, OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

The community's vision for its future is reflected in the goals, objectives, policies, and implementation programs contained in its general plan. The Moreno Valley General Plan reflects the community's view of its ideal character. With goals stated, objectives are developed which serve as quantifiable milestones on the way to attaining the ideal character stated in the goals. Policies related to each objective serve as principles guiding actions for attaining the goals. Finally, implementation programs are included to identify specific actions to be taken to implement General Plan policies.

Thus, goals, objectives, policies, and implementation programs can be defined as follows:

**Goals** are statements of the City's ideal characteristics, representing basic community values. In addition to a general goal statement, each General Plan element contains its own goals related to its area of emphasis.

**Objectives** serve to help determine the City's success in achieving its plans for the future based on the goals presented in each of the elements of the General Plan. Objectives are used to define the specific characteristics of identified goals, and serve as milestones. Objectives are generally presented as specific, quantifiable statements which can be used to determine achievement of goals.

**Policies** serve as guidelines which the City will follow in attaining objectives. Policies serve as principles upon which the actions leading to completion of objectives will be based.

**Implementation Programs** are specific actions to be taken to implement identified General Plan policies.

## B. THE MORENO VALLEY COMMUNITY

### 1. LOCATION

Moreno Valley lies in a crescent of land bounded by the Box Springs Mountains to the north, the steep hills of the "Badlands" to the east, the San Jacinto Hills to the south, and the City of Riverside to the west. This magnificent setting has given shape and form to the rapidly growing community.

Moreno Valley is located in northwestern Riverside County, approximately 52 miles east of downtown Los Angeles, and 42 miles west of Palm Springs (see Figure 1). The cities of Riverside and San Bernardino are ten miles to the west and northwest, respectively.

The City is located near the eastern edge of the Los Angeles metropolitan area, at the gateway to the desert recreation areas of the Palm Springs area. Moreno Valley is well situated along two major freeway routes. The Pomona Freeway (State Route 60) connects Moreno Valley directly to downtown Los Angeles and the regional freeway system, including excellent connections to the employment centers of Orange County via the Riverside Freeway (State Route 91). To the east, the Pomona Freeway connects with Interstate 10, running to Palm Springs, Phoenix, and beyond. Interstate 215 runs along the westerly city limits, and is an important north-south highway link from San Diego through western Riverside and San Bernardino counties, into Las Vegas, Salt Lake City, and beyond.

### 2. GENERAL PLAN STUDY AREA

The study area for the Moreno Valley General Plan includes the approximately 49.0 square miles within its present city limits, as well as the 19.8 square miles presently within its sphere of influence. The study area for the Moreno Valley General Plan also includes significant areas which are presently outside of its sphere of influence. At the outset of

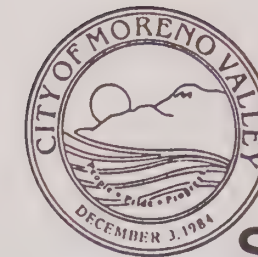
the program, it was determined that development of certain lands to the north and east of the City and its sphere of influence could have a significant effect on the City of Moreno Valley. Therefore, the general plan study area was extended north to the San Bernardino County line and east into the Badlands to San Timoteo Canyon Road.














## STUDY AREA

### LEGEND

-  MORENO VALLEY GENERAL PLAN PROGRAM STUDY AREA
-  MORENO VALLEY CITY LIMITS
-  MORENO VALLEY SPHERE OF INFLUENCE

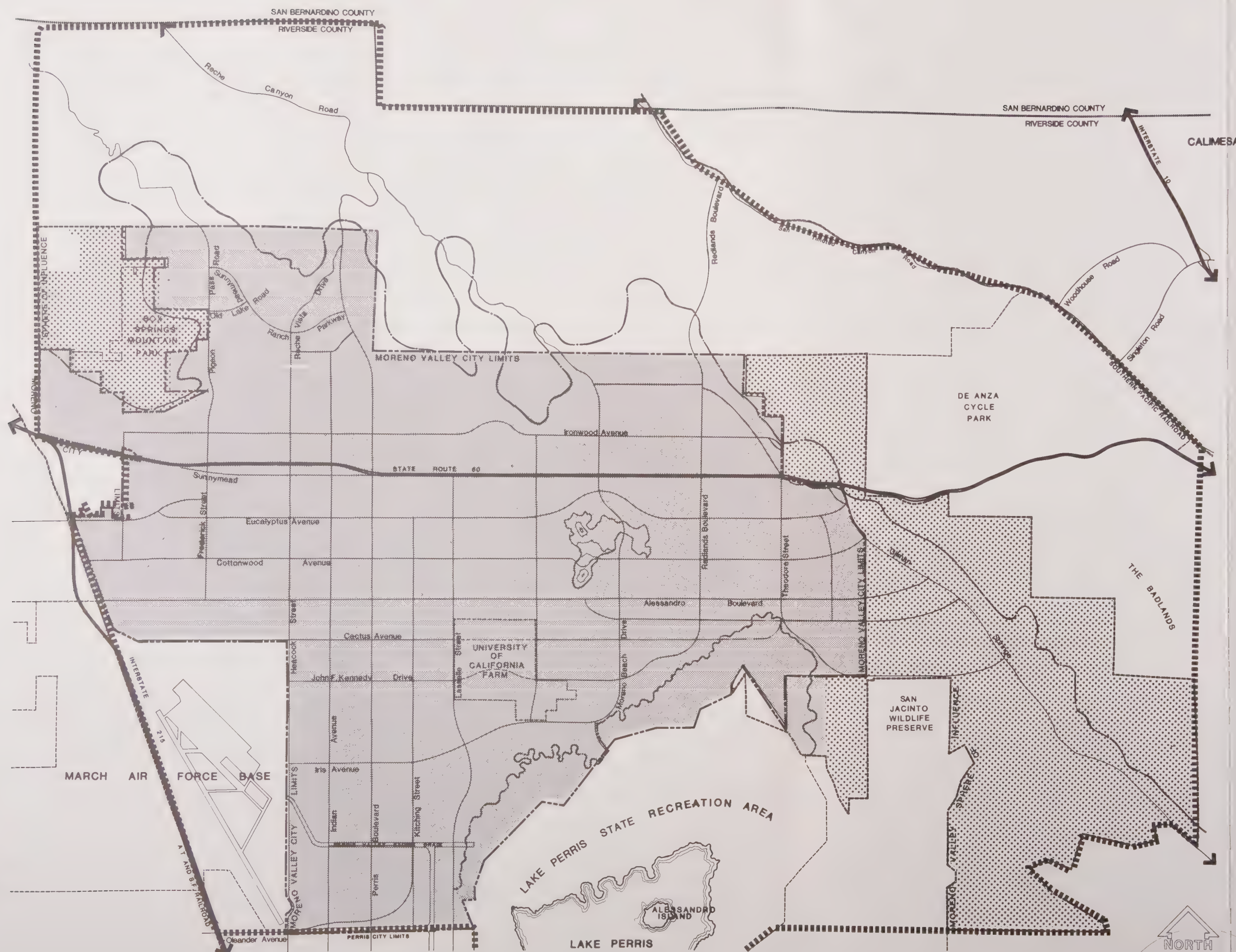
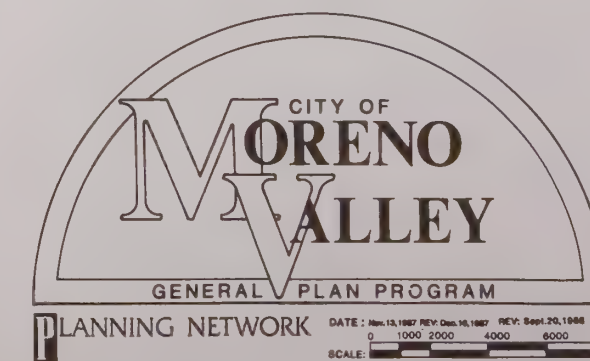


FIGURE 2







## C. GENERAL PLAN ORGANIZATION

### 1. THE MORENO VALLEY GENERAL PLAN PROGRAM

The Moreno Valley General Plan is the result of an extensive program of community participation and professional research and decisionmaking. The General Plan program was designed first to establish a clear understanding of community concerns and the existing conditions which would shape the City's future. Next, goals and objectives were formulated to provide general direction for general plan policies and programs. Finally, a detailed evaluation of the plan was undertaken to identify the impacts of future growth and change, and to determine if the General Plan provided the mitigation and protection from future adverse effects of growth and change which the community desired.

#### a. COMMUNITY PARTICIPATION AND THE COMMUNITY ISSUES REPORT

Community input has been an integral part of the Moreno Valley General Plan program. Prior to formal initiation of the program, the City Council appointed an eighteen-member General Plan Advisory Committee to assist in the formulation of the program. The Moreno Valley General Plan is to a great degree the result of the efforts of these individuals.

The program began with the identification and evaluation of significant community issues, needs, and desires. The identification of community issues and desires for the future of Moreno Valley was determined in several ways. First, a series of one-evening workshops were held on a citywide and area basis to explain the planning process, and to gain input regarding significant issues and desired directions for future community development. A total of six workshops were held.

In addition, two sets of community interviews were conducted. Twenty-four (24), in-depth "target" interviews were conducted, including interviews of

present and past City Council members, Planning Commissioners, and other key community members. A broader, scientifically conducted community opinion survey was also conducted to identify the attitudes and desires of the community at large. The results of these efforts were summarized into a Community Issues Report, which is available under separate cover.

b. EXISTING SETTING REPORT

Necessary research material to establish the baseline for the Moreno Valley General Plan study area was collected, evaluated, and compiled into an Existing Setting Report. The purpose of this report was to provide the citizens of Moreno Valley with an understanding of existing natural and man-made conditions within the community, and to form the factual basis for General Plan preparation. The Existing Setting Report was used extensively throughout preparation of the General Plan, and now serves as the existing setting portion of the Moreno Valley General Plan.

c. GOALS AND OBJECTIVES REPORT

Following preparation of the Existing Setting Report, a Goals and Objectives Report was prepared to identify the goals and objectives for the Moreno Valley General Plan. This report guided the preparation of the policies and programs contained in the Moreno Valley General Plan, in addition to guiding the preparation of the land use, circulation, and open space maps.

The Moreno Valley General Plan Goals and Objectives Report was largely based upon the input of the General Plan Advisory Committee and on the Community Issues Report. The report clarified those issues toward which the community wished to direct attention.

#### d. LAND USE ALTERNATIVES

Three alternative scenarios for the buildout of the City of Moreno Valley were prepared following the Goals and Objectives Report to identify directions which might be pursued (consistent with stated goals and objectives) by emphasizing different priorities. These alternatives, which are described in the Master Environmental Assessment, were used to help establish priorities between competing community values. Based on environmental and value-based assessments of land use alternatives, a composite land use plan was derived which served as the basis for the Moreno Valley General Plan and its various components.

#### e. MASTER ENVIRONMENTAL ASSESSMENT

Along with the General Plan, a Master Environmental Assessment was prepared to act as the Environmental Impact Report for the General Plan, and to provide an overview of the impacts of future growth and changes which might be expected following General Plan adoption and implementation. The Master Environmental Assessment is available under separate cover.

## 2. GENERAL PLAN DOCUMENT ORGANIZATION

### *Chapter I* - Introduction

*Chapter II* of this document contains the Environmental Resources Element of the Moreno Valley General Plan. Within this chapter is a brief introduction to environmental resource issues, followed by environmental resource goals. Then, for each environmental resource issue, there is a description of existing conditions followed by issues and opportunities. At the end of the Environmental Resources Element are environmental resources objectives, policies, and implementation programs.

*Chapter III* of this document contains the Public Health and Safety Element of the Moreno Valley General Plan. Following a brief introduction to public health and safety issues, are the goals for the Public Health and Safety Element. Then, for each public health and safety issue, there is a description of existing conditions following by issues and opportunities. Public health and safety objectives, policies, and implementation programs are found at the end of Chapter III.

*Chapter IV* encompasses the Community and Cultural Resources Element of the Moreno Valley General Plan. This element begins with a brief introduction to the issues it discusses, followed by Community and Cultural Resources goals. For each issue in this element, there is a description of existing conditions followed by issues and opportunities. The element concludes with a description of its objectives, policies, and implementation programs.

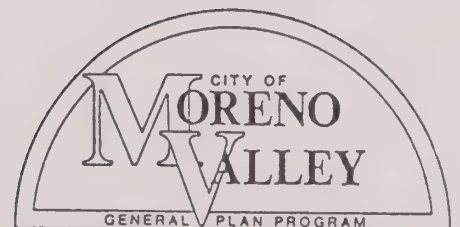
*Chapter V* incorporates the Community Development Element. This element begins with a brief introduction into its issues, followed by element goals. A description of existing conditions and issues and opportunities is then presented for each Community Development issue. The element concludes with Community Development objectives, policies, and implementation programs.

*Chapter VI* contains a five-year housing program in compliance with state housing element guidelines, including action programs in support of achieving housing production, affordability, condition, conservation, and accessibility goals. This chapter concludes with a brief discussion of the public's participation in the development of the housing program.



## II. ENVIRONMENTAL RESOURCES ELEMENT

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## II. ENVIRONMENTAL RESOURCES ELEMENT

### A. INTRODUCTION

The Environmental Resources Element contains a description of the natural and man-induced environments within the Moreno Valley general plan study area. The issues discussed in this element can be identified as those resources suitable for certain levels of maintenance and protection, as well as their limitations for rural or urban use. In the context of the overall General Plan, this element establishes a large percentage of the Moreno Valley's environmental baseline information. Major sections within the Environmental Resources Element are:

- Soils
- Water Resources
- Biological Resources
- Energy Resources





## B. ENVIRONMENTAL RESOURCES GOALS

It is the goal of the Environmental Resources Element of the Moreno Valley General Plan to achieve:

- The wise use of natural resources within the City of Moreno Valley, its sphere of influence and its planning area.



## C. SOILS

### 1. EXISTING SETTING

#### a. SOIL ASSOCIATIONS

The United States Soils Conservation Service (SCS) has mapped soils within Western Riverside County to identify the soil types which are found in the area, their location, and their potential uses. The general classification used in the mapping is called a soil association. An association is a landscape that has a distinctive proportional pattern of specific soil types. It normally consists of one or more major soils and at least one minor soil, and is named after the major soils.

Identification of soil associations is helpful to 1) get a general idea of the soils in an area, 2) identify large areas of land suitable for a particular purpose, and 3) to identify general areas of potential constraints. It is also a useful general guide for managing watershed or wildlife areas, or in planning and engineering works, recreational facilities, and community development.

Five soil associations are found within the Moreno Valley study area. These are identified as the: Monserate - Arlington - Exeter Association, Hanford - Tujunga - Greenfield Association, Cienega - Rock Land - Fallbrook Association, San Emigdio - Grangeville - Metz Association, and the Badlands - San Timoteo Association.

**Monserate - Arlington - Exeter Association** soils are found on terraces and on old alluvial fans. Within the Moreno Valley study area, this association is located adjacent to and within the eastern half of March Air Force Base. It consists of well-drained soils that developed in alluvium from predominantly granitic materials. This association is found on nearly level to moderately steep slopes from 0 to 25 percent with a surface layer of sandy loam and a shallow to deep sandy clay loam hardpan. Soil

stability is considered fair to good with minimal erosion potential. The soils of this association are used for irrigated truck and citrus crops, alfalfa, grain, and homesites with other related urban uses.

**Hanford - Tujunga - Greenfield Association** soils occur on alluvial fan and flood plain areas. They are found in the central portion of the Moreno Valley study area, generally extending northeast to southeast of March Air Force Base. This association consists of well-drained to somewhat excessively drained soils, developed in granitic alluvium. These soils are found on nearly level to moderately steep slopes of 5 to 15 percent. They have a good topsoil layer of coarse sandy loam with an underlying stratified coarse sandy loam and loamy sand texture. Soil stability is considered poor to fair with significant erosion hazards. The soils of this association are used for dry farming grains and pasture, and for irrigated grains and citrus. They are also used for homesites and other related urban and rural uses.

**Cieneba - Rock Land - Fallbrook Association** soils are found on uplands located in the Box Springs Mountains area, and extend east to Reche Canyon, and into the Mount Russell area. These soils are formed in coarse-grained igneous rock. This association consists of somewhat excessively drained soils on undulating to steep slopes ranging from 5 to 50 percent. They generally have a poor topsoil layer of sandy loam with a second, underlying layer of gravelly coarse sand, and a third layer of weathered granodiorite. Detached rock outcrop areas are present along with weathered rock close to the surface. Soil stability is generally considered fair with marginal potential for erosion. The soils of this association are used for dry farming grains, pasture and range, and irrigated citrus crops. They are also used for homesites and other related urban and rural uses.

**San Emigdio - Grangeville - Metz Association** soils are found on alluvial fan and floodplain areas. Within the Moreno Valley study area, the soils along the western side of Gilman Springs Road comprise this association. These soils are well-drained and found on nearly level to very steep slopes ranging from 0 to 50 percent. They have a good topsoil



and an underlying layer consisting of fine sandy loam. Soil stability is considered poor to fair with significant potential for erosion hazard. The soils of this association are used for dry farming grain and pasture, and for irrigated tree and truck crops. With proper soil engineering, they are also used for homesites and related purposes.

**Badlands - San Timoteo Association** soils occupy the area along the northern side of Gilman Springs Road into the Badlands region. This association consists of well-drained soils found on steep to very steep slopes ranging from 30 to 70 percent. The soils are variable, consisting of soft sandstone, siltstone, and beds of gravel. These soils also range in texture from sandy loam to clay loam, having poor topsoil characteristics. The very shallow depth to bedrock severely limits any use of septic tank sewage disposal in this area. Soil stability is considered poor to fair with significant potential for erosion hazard. Protection from fire is needed to reduce the hazard of severe erosion. The soils of this association are primarily used for watershed, open space, recreation, and wildlife habitat.

#### b. SOIL CAPABILITY

Soils within the study area have been identified through SCS land capability classifications by groupings relative to their potentials and limitations toward the cultivation of most kinds of field crops. Soils considered to be of prime agricultural value are: Class I, Class II, or Class III. The SCS has defined a total of eight separate soil classes as follows:

**Class I** soils have few limitations that restrict their use. (There were no Class I soils found in the Moreno Valley study area.)

**Class II** soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

**Class III** soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

**Class IV** soils have very severe limitations that reduce the choice of plants, require very careful management, or both.

**Class V** soils are not likely to erode but have other limitations, impractical to remove, that limit their use largely to pasture, range, woodland, or wildlife. (There were no Class V soils found in the Moreno Valley study area.)

**Class VI** soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife. (There were no Class VI soils found in the Moreno Valley study area.)

**Class VII** soils have severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife.

**Class VIII** soils and landforms have limitations that preclude their use for commercial plants and restrict their use to recreation, wildlife, water supply, or to aesthetic purposes.

The land capability classes of the various soils within the study area are illustrated in Figure 3. In general, prime agricultural soils are found on the alluvial deposits of the valley floor, while the soils subject to the greatest limitations for agricultural use are located in the Box Springs Mountains, Reche Canyon area, the Badlands, and the Mount Russell area. Although no Class I soils exist within the study area, Class II soils generally dominate the eastern portions of the valley floor, which is, for the most part, presently in agricultural production. The developing portions of the Moreno Valley study area generally consist of Class II and III prime agricultural soils.

Nonprime Class IV soils exist at two general locations within the study area. One is at the southeast portion of the study area, due east of

Lake Perris, between Davis Road and Gilman Springs Road. The other is located just west of Lake Perris along the existing drainage swale from the Perris Valley Storm Drain to Nason Street.








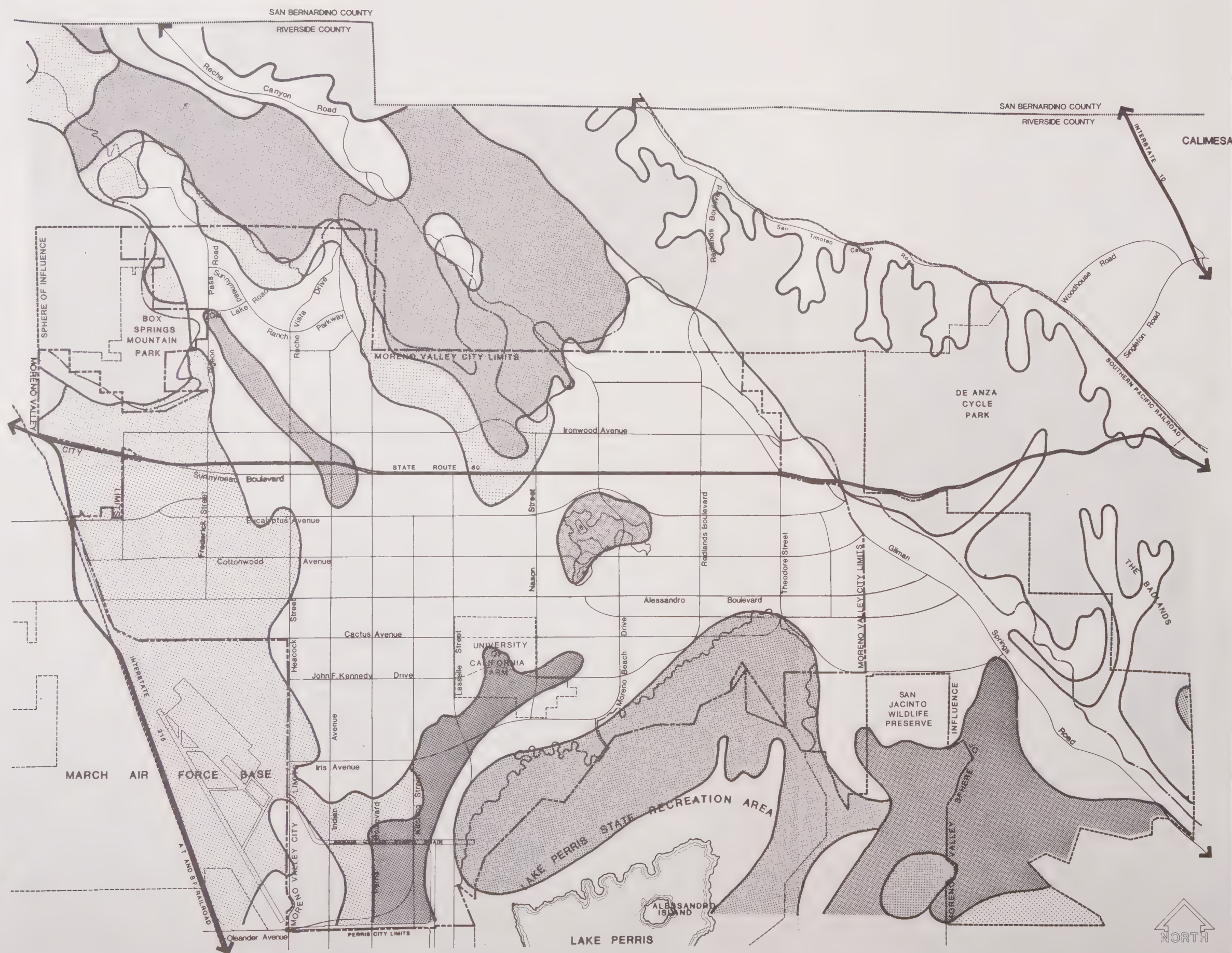




# SOIL CLASSIFICATIONS

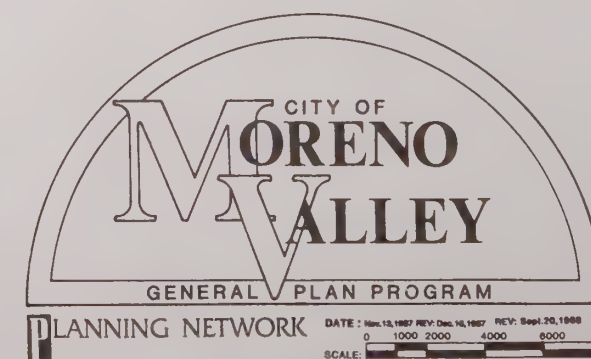
## LEGEND

-  CLASS II
-  CLASS III
-  CLASS IV
-  CLASS VII
-  CLASS VIII



Source: Riverside County

FIGURE 3







## 2. ISSUES AND OPPORTUNITIES

With exception of the Badlands - San Timoteo Association, soils within the Moreno Valley study area present few significant limitations on urban or rural development. Conditions of shallow depth to bedrock and rock outcroppings generally occur on the steeper slopes of the study area, and appear to be the most significant physical constraint to development. Conventional grading may require light to heavy ripping in order to loosen soils, and blasting of shallow and exposed unweathered granitic rock may be required in steeper areas. Although intense urban and agricultural development of these soils would be constrained, low intensity, large lot development would not be significantly limited. In addition, while traditional park land with active facilities such as sports fields and other intense recreational uses would also be limited, the use of passive, visual open space would not have significant limitations.

As urban and rural development of the Moreno Valley study area proceeds, natural soils will be exposed during grading operations. During this time, soils of poor to fair stability may become susceptible to water erosion, hillside slope failure, and wind erosion. The extent of erosion which could occur depends on the particular soil, the extent of area being exposed, the slope, and the time of year grading operations occur. Proper erosion control methods will need to be implemented to minimize such impacts of development.

The use of septic tanks for sewage disposal is generally limited to the eastern portion of the Moreno Valley study area. The ability of soils to absorb effluent from septic tanks is classified by the SCS as having only slight limitations in the valley portions of the study area. Rural development in this area, as well as the lower slopes of the Badlands, will not be limited prior to extension of sewage facilities. However, development into the steeper slopes of the Badlands and the Mount Russell area, even for public park purposes, will require the extension of sewage facilities.

None of the soil associations in the Moreno Valley study area are significantly limited by soil corrosiveness or shrink-swell characteristics that could affect the construction of roads, foundations of structures, or other urban uses.

As noted above, the most level portions of the study area on the valley floor generally contain prime agricultural soils. These prime soils are located on the relatively flat valley floor, and are easy to grade as compared to the nonprime soils of the study area. The nonprime soils are primarily located on steeper slopes, and exhibit rock outcrops and rock at shallow depths. Thus, urban development on prime agricultural soils in the study area is generally far less expensive than development in the nonprime soil areas. Consequently, the prime agricultural soils within the study area are considered by land developers to be the most desirable areas for future urbanization.

While the preservation of prime agricultural soils for agricultural use has been advocated by the State of California and local agencies throughout the state as a desirable land use objective, the retention of agricultural land is far more complicated than merely identifying prime agricultural soils, and legislating their use for agricultural purposes only. In addition, agriculture is a business that exists only where economics and area land use are favorable toward animal and crop production. The issues affecting the potential success of an agricultural preservation program include the availability and cost of water, land use competition and urban/rural land use conflicts, and the economics of agricultural production. These issues are discussed in more detail elsewhere in this text.



## D. WATER RESOURCES

### 1. EXISTING SETTING

#### a. SURFACE WATER

Elevations on the valley floor are generally higher than other valleys and canyons within the general vicinity of the study area. As a result, surface water generally flows from within the study area boundaries into other areas, rather than from other areas into the study area.

Surface water within the study area generally drains into two major watersheds: the Santa Ana River and the San Jacinto River. Figure 4 illustrates drainage patterns throughout the study area. A minor topographic divide extending southward from the Box Springs Mountains across the Edgemont area acts as the drainage divide between the two watersheds. The area west of the ridgeline accepts partial south-flowing storm runoff out of the Box Springs Mountains and the western two-thirds of the Edgemont area, into Sycamore Canyon which flows to the Santa Ana River.

All runoff east of the divide generally flows in a southerly direction from the mountainous and hilly terrain in the northern portion of the study area to the San Jacinto River. A divide between the upper portion of the Moreno Valley and the San Jacinto Valley serves as another drainage divide which diverts water flows approximately east of Theodore Street in a south to southeasterly flow through the San Jacinto Valley and into the San Jacinto River. Flows west of Theodore Street pass across the Moreno Valley floor in a south to southwesterly direction to the Perris Valley Storm Drain which also drains into the San Jacinto River. The San Jacinto River ultimately flows into Lake Elsinore.

Surface water flows generally only occur during and immediately after rainfall in the area. Storm flows are carried through the study area by several existing improved and unimproved drainage

channels, such as the Sunnymead Storm Channel, the Heacock Channel, and the Kitching Street Channel. Other smaller, yet vital ditches and drainage ways also exist in conjunction with the established storm drain facilities. These too have a general flow pattern of north to south and primarily flow only during and immediately after storms. Currently, no significant facilities exist for the retention of surface flows for agriculture or domestic water use. Flood control retention facilities found within the study area are addressed in the Flood Control Facilities section of the Community Development Element.

b. GROUNDWATER

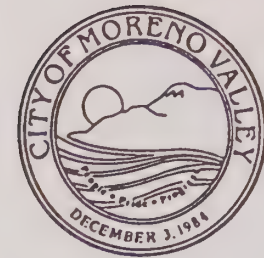
Located within the study area are two hydrological groundwater basins: the Perris Basin and the San Jacinto Basin (see Figure 5). The California State Department of Water Resources (DWR) has classified each hydrological basin into separate units. Three units prevail for the Moreno Valley study area: S-1, P-1, and the upper portion of P-2. The DWR estimated the groundwater basin storage in 1975 as shown in Table II-A.

Table II-A

GROUNDWATER BASIN STORAGE




Basin Unit	Storage Capacity	Water in Storage	% of Capacity
S-1	280,000 AF	220,000 AF	79%
P-1	290,000 AF	180,000 AF	62%
P-2	430,000 AF	220,000 AF	51%

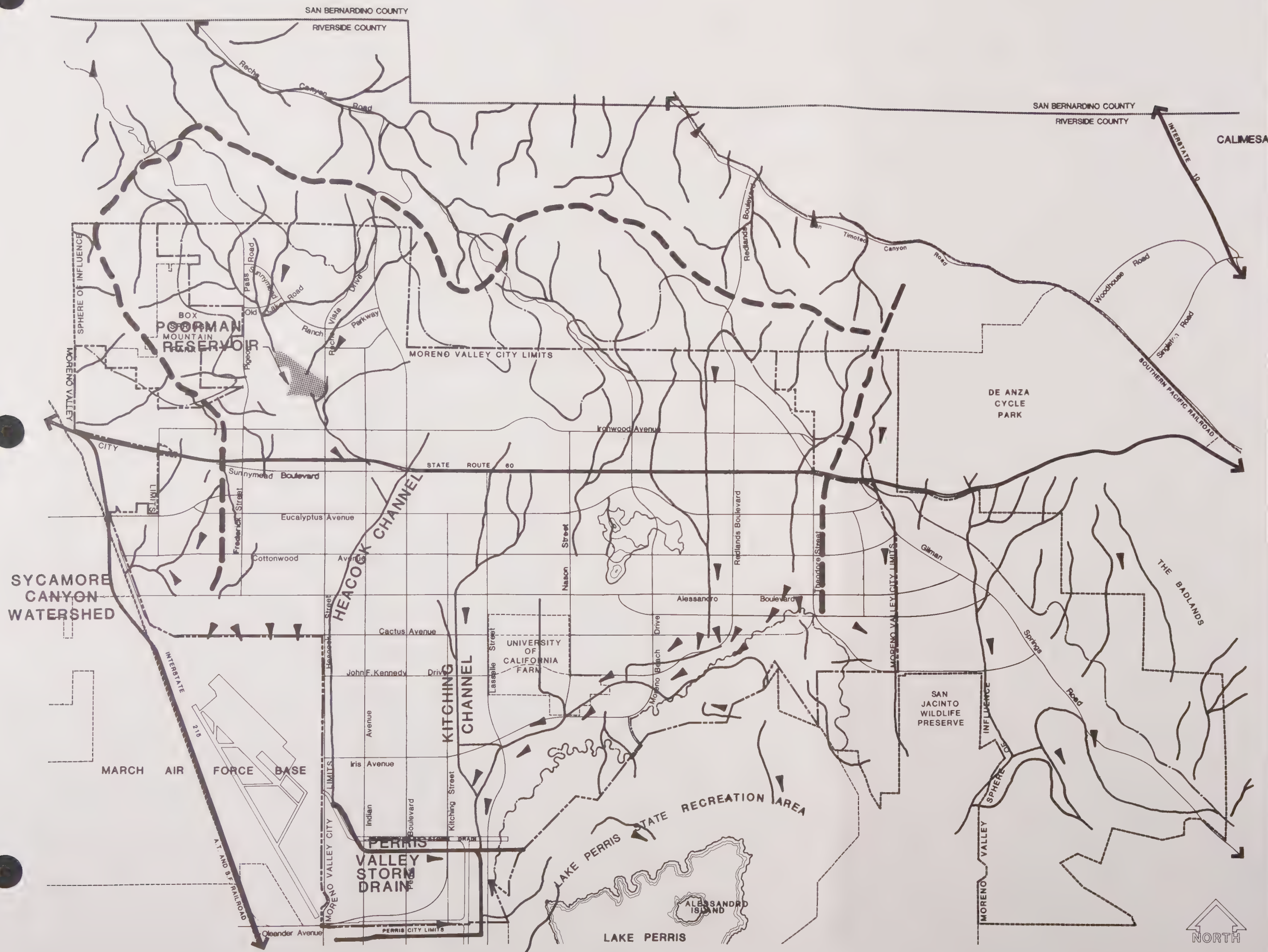
Source: California Department of Water Resources



# SURFACE WATER FLOWS

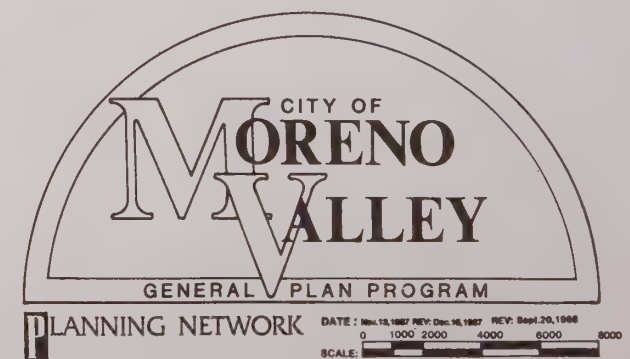
## LEGEND

-  SURFACE FLOW LINES
-  SHEET FLOW DIRECTION
-  DRAINAGE DIVIDE



Source: Riverside County

FIGURE 4

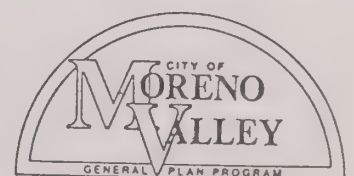
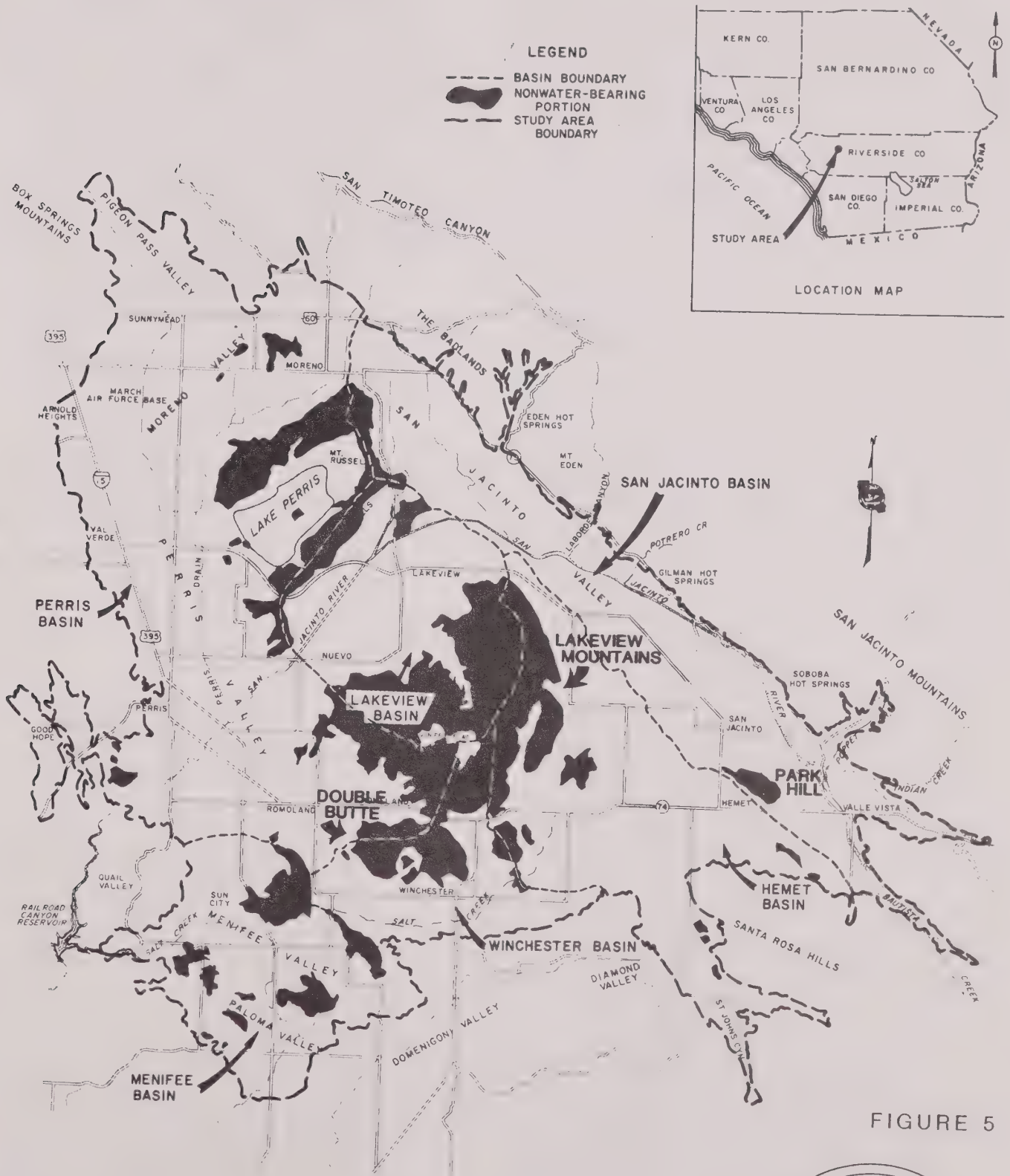






# UNITS OF GROUND WATER STORAGE

DEPARTMENT OF WATER RESOURCES





The Eastern Municipal Water District (EMWD) has stated that the current groundwater levels have generally remained unchanged and/or have increased within the study area since 1975. Storage capacities of the groundwater basins are also essentially unchanged.

The extreme depths of groundwater levels within the Moreno Valley have generally limited the use of wells for agricultural and domestic use. The depth of wells varies from 200 to 800 feet within the Perris Basin and 100 to 1,800 feet within the San Jacinto Basin.

Safe yield of groundwater basins within the S-1 and P-1 areas has been estimated at 500 acre feet each per year, and the P-2 basin has been estimated at 1,000 acre feet per year. However, of the three small groundwater purveyors existing within the Moreno Valley city limits -- two of those companies, Sunnymead Mutual Water Company and Edgemont Gardens Water Company, rely heavily upon well water pumped from the P-1 area of the Perris Basin.

Edgemont Gardens Water Supply Company currently operates two (2) wells within the P-1 unit, one of which produces approximately 13.30 acre feet per year, while the second produces approximately 190.70 acre feet per year, for a total annual extraction of approximately 154.00 acre-feet.

Sunnymead Mutual Water Company also is currently operating two well sites within the study area. The oldest of the two, well #3 currently produces approximately 200 acre feet per year while the other, well #4 (recently constructed and put into operation in 1983) produces only about 23 acre feet per year, for a total annual production of 223 acre feet per year. It should be noted that the lower production of well #4 is reflective of its current function as a back-up well, as opposed to a production well, and the product of routine monthly twelve (12) hour operation intervals for maintenance purposes. In actuality well #4 has a design capacity to produce 850 gallons per month, equating to an annual production capability of 683.75 acre feet based upon alternating twelve (12) hour operation intervals for 365 days a year.

Therefore, given the capacity of Sunnymead Mutual Water Company's well #4, as discussed above, and given the combined quantities of groundwater currently being extracted from the P-1 unit of the Perris Basin (approximately 377 acre feet per year), the operation of well #4 should be limited to a level of extraction that will ensure the total annual production of groundwater quantities within the P-1 unit, but does not exceed the 500 acre-feet per year safe yield limit established by the Department of Water Resources in their 1978 evaluation of water resources in the San Jacinto area.

Although the third purveyor, Box Springs Water Company, is located within the limits of the City of Moreno Valley, the 400 acre feet of groundwater produced by its well operations annually are not drawn from the Perris Basin, but from adjacent groundwater supplies to the west within a Riverside sub-basin area of the upper Santa Ana groundwater basin.

Groundwater basins are naturally recharged through the percolation of runoff, direct precipitation, subsurface inflow, and artificial recharge. The Perris Valley and San Jacinto Basins receive water from storm runoff and rainfall precipitation. However, within the Moreno Valley study area, direct rainfall precipitation is the only significant source of groundwater recharge. The only existing facility that might allow for recharge in the study area would be the Poorman Reservoir. Since this facility and other smaller retention basins are generally dry and primarily used for buffering-retention, not storage or recharge, there is no significant amount of recharge within the Moreno Valley study area.

#### C. IMPORTED WATER

The primary source of imported water into the Moreno Valley study area is the State Water Project (SWP). Originating in Northern California, the California Aqueduct transports water to Southern California, storing it in a series of reservoirs for distribution, the last of which is Lake Perris.



SWP water in Southern California is managed by the Metropolitan Water District (MWD), and has been delivered to the Eastern Municipal Water District (EMWD) through the MWD's Mills Filtration Plant since 1983. The Mills plant is located approximately two miles west of the study area, and is the primary water source to Moreno Valley. EMWD is the major water distributor and purveyor to the City of Moreno Valley.

A secondary source of imported water available to the study area is the Colorado River Aqueduct. Metropolitan Water District (MWD) has traditionally imported this water into the Southern California region; however, quantities have been limited by the 1964 decree by the U.S. Supreme Court allowing increased usage by other Colorado River states. Colorado River water is not as desirable as SWP water due to its lower quality and required water treatment for domestic use. Currently the MWD allows EMWD and other purveyors to purchase up to 130 percent over their average annual SWP water use in any particular year. Upon reaching this limit, the purveyor must rely on Colorado River water.

#### d. WATER QUALITY

The quality of water is determined by the water source, character, constituents, fluctuations, trends, and impairments. The Department of Water Resources (DWR) completed a study along with the EMWD on groundwater and water supplies within the San Jacinto area (including the Moreno Valley) entitled, "Evaluation of the Water Resources in the San Jacinto Area" (District Report, 1978). The report evaluates the quality of the four types of water resources present in the study area: groundwater, surface water, imported water, and reclaimed water.

(1) **Groundwater.** The total dissolved solids (TDS) concentrations in the groundwater of basin units P-1 and P-2 generally range from about 300 mg/l to 600 mg/l. Thus, the groundwater TDS levels have some water quality limitations for domestic use, and are only being pumped on a limited basis.

According to EMWD, the chemical character of the water is mostly sodium chloride (common salt), probably due to extensive agricultural irrigation in the past, as well as on present agricultural land. Extensive irrigation, combined with the water loss by plants (evapotranspiration), has produced changes in the minerals within the soil, which leave more sodium and chloride in the water. The only source of water to dilute the minerals is percolation of rainfall.

Nitrate concentrations have also been increasing over the years as a result of agricultural fertilization practices and the use of reclaimed water for irrigation. Groundwater supplied from the P-1 area by the two smaller local water companies, noted above, has contained nitrate levels exceeding state drinking water standards. Those companies have been required to blend groundwater with water purchased from EMWD.

Fluoride and boron concentrations are also relatively high in many of the wells located along the base of Mount Russell and adjacent foothills within Moreno Valley. The occurrence of high fluoride and boron concentrations is often associated with geologic faults. Thus, according to the DWR, this combination of fluoride and boron concentrations found within the study area may possibly indicate the presence of unmapped faults.

Unit S-1 of the northern portion of the San Jacinto Basin encompasses the eastern portion of the Moreno Valley study area. The TDS range varies, with much of the area containing 500 - 2,000 mg/l. These extreme TDS levels have severely limited the use of groundwater for agriculture and domestic use. The pH factor is generally high, as are concentrations of sodium, carbonate, and bicarbonate.

The Brownland's Mutual Water Company located within the Moreno Valley sphere of influence, currently provides well water from the S-1 unit of the San Jacinto Basin, for agricultural use within the southeastern portion of the study area.

Groundwater in the area adjoining the Badlands reaches highs of 1,500 mg/l TDS probably because of the poor quality runoff from the Badlands. Sulfate concentrations throughout the area are low, probably as a result of sulfate reduction which occurs when bacteria in the soil change the sulfate into hydrogen sulfide gas which escapes into the atmosphere. Although data in this area is limited, the faults of the area appear to affect nearby groundwater because high boron and fluoride concentrations, often associated with geologic faults, are found in wells located near existing faults.

(2) **Surface Water.** The most significant water drainage flow within the study area is the Perris Valley Storm Drain. Last measured in 1962 near March Air Force Base, a TDS value of 56 mg/l was found. At Nuevo Road, TDS values of 440 and 473 mg/l were measured in 1966 and 1967. The character of the water is mostly sodium-calcium bicarbonate or calcium-sodium bicarbonate. Because of the nature of surface water, the mineral constituents vary widely in both quantity and distribution.

The EMWD has cited various examples of protection programs designed to preserve the quality of groundwater and surface water in or near the study area. Examples include the following:

- Well Drilling Standards - Riverside County and California State guidelines for the safe and correct procedure for water well construction.
- Well Abandonment or Destruction Standards - California State guidelines for the safe removal of water wells.
- Underground Storage Tanks - Riverside County and California State regulations for placement, construction, and maintenance of all underground storage tanks.

- Septic Tank/Soil Leaching Systems - City of Moreno Valley and Riverside County standards for construction, placement, and use of septic tanks and soil leaching systems.<sup>1</sup>
- Hazardous Wastes - Riverside County, California State, and Federal guidelines and procedures for storage, transportation, and disposal of hazardous waste material.
- Current Investigation on Groundwater at MAFB - Riverside County and Federal monitoring of groundwater on and adjacent to March Air Force Base due to hazardous material associated with past aircraft maintenance operations.
- Review of Sewer Systems - EMWD, City of Moreno Valley, and Riverside County standard planning procedures for safe and adequate construction and maintenance of sewer systems.
- Water Reclamation/Sewage Treatment - EMWD, California State Health Department, California Regional Water Quality Control Board-Santa Ana Region (CRWQCB-SAR), and Federal guidelines and monitoring of sewage treatment, water reclamation, and disposal or use of treated water and sewage product.
- Sanitary Landfills - Riverside County guidelines, standards, and monitoring of wastes entering all county sanitary landfills.

(3) **Imported Water.** Colorado River water has been imported into the Perris Basin continuously since 1942 and into the San Jacinto Basin since 1951. A few years later, water from the State Water Project was supplied to the Perris Basin with a TDS content which ranged from 610 to 800 mg/l. With the construction of Lake Perris, a facility of the State Water Project, a source of better quality imported water with a TDS content ranging from 200 to 300 mg/l became available. EMWD estimates that, currently, 99 percent of their water distributed throughout the study area is from State Water Project supplies.

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<sup>1</sup>Subsequent to original publication, it has been learned that the Regional Water Quality Control Board also governs septic system applications.



Imported water from the State Water Project typically has a much higher quality than that from the Colorado River. The higher TDS ratings and calcium content associated with Colorado River water makes for a less desirable water source. In addition, the blending of Colorado River water with state project water, which has a high chlorine content, results in minor water quality complications, such as possible odors and less clarity.

## 2. ISSUES AND OPPORTUNITIES

### a. WATER AVAILABILITY

In 1978, a ten year study of the water resources in the San Jacinto area, which included the Moreno Valley area, was completed by the California State Department of Water Resources, Southern District. The study, entitled "Water Resources of the San Jacinto Area", dated April, 1978, was comprehensive in its treatment of the total water resources and supply system available to the area. From the findings of this study, the following conclusions were drawn:

- Water demand in the San Jacinto study area will increase at or near a constant rate in the foreseeable future. Water conservation efforts may help reduce this increase.
- Water supplies appear to be adequate for meeting the future demand of the area through the year 2000. The variables are primarily economics (the cost to water users), energy use, and environmental factors.
- In the event of drought or other crisis affecting the state water project supply, there is enough groundwater in the area to meet the demand for many years. Additional facilities would be needed for groundwater pumping and distribution throughout the study area and there are some localized water quality problems that have limited the reliance on local groundwater for domestic use.

- The quality of groundwater is changing as a result of natural causes, return of used water to the basins, and a change in groundwater flow resulting from pumping patterns.

MWD has traditionally imported Colorado River water, via the Colorado River Aqueduct. However, the availability of Colorado River water to Southern California has been limited as a result of a 1964 decree by the U.S. Supreme Court permitting increased usage by Arizona and other Colorado River states. Currently, the most significant source of additional Colorado River water is attained from Arizona's and Nevada's unused apportionments, thus reducing the impact of Colorado River water availability. However, as growth occurs within those states, the availability of unused apportionments will decline, and ultimately disappear.

Despite current adequate water supplies in Southern California, the Southern California Association of Governments (SCAG) and MWD have estimated future shortfalls in water availability. For the year 2000, in the absence of new supply facilities, a possible four percent regional shortfall in average water supply years, and a 33 percent shortfall under drought conditions could occur. By the year 2010, a regional shortfall of about ten percent in average water supply years and a regional shortfall of close to 40 percent under drought conditions could occur. Thus, unless new regional water supply facilities are constructed, the population, housing, and employment projections contained in the Moreno Valley General Plan may not be achieved due to regional shortfall in water availability.

SCAG predicts that such impacts could be reduced by making better use of current water supplies through water conservation and reclamation efforts including pricing measures, water reuse/recycling, metering, leak detection and repair, pressure reduction, alternative development patterns, growth limitation or management, and water storage and exchange programs. Other significant alternatives, such as construction of new supply facilities, include the completion of the State Water Project.

#### b. WATER RECLAMATION AND REUSE

Making use of treated (reclaimed) wastewater is generally desirable from an economic as well as a water conservation standpoint. In the study area, treatment plant effluent is currently being used for irrigation of crops. EMWD's Sunnymead facility treats 4.7 million gallons per day, and sells all of this treated water to local agricultural interests. In addition, demand for another 1.5 million gallons of treated water exists by local agriculture operations. The reclaimed water contains 787 mg/l TDS. According to EMWD, the treatment plant is expected to double in capacity within the next two years and negotiations are underway with land developers for the use of reclaimed water on landscaping, man-made lakes, and similar purposes.

The availability of treated wastewater for agricultural use could assist in maintaining some agricultural uses within the study area as the cost of treated wastewater will be less than that of imported water supplies. In addition, by maintaining some agricultural land, EMWD could delay construction of the expensive tertiary treatment facilities which would be necessary if agricultural lands were not available for wastewater disposal. However, it should not be assumed that by making treated wastewater available to agricultural uses within the study area, that these uses are then viable in the long term. Although water costs may be reduced, the agricultural use of reclaimed water would still likely not maximize the farmers economic investment.

Another opportunity for the reuse of treated wastewater will occur in the area to the west of the treatment facility if that area is reserved for industrial use. Depending on the specific types of industrial use which might locate in the area north of Oleander, between March Air Force Base and the treatment facility, it may be feasible to use treated wastewater for industrial processes. In addition, reclaimed wastewater may be a viable source of water for landscape irrigation if it can be economically delivered.



### C. URBAN RUNOFF

Future development within the study area could result in long term changes in the quantity and/or quality of runoff and groundwater. The pollutants normally associated with agricultural and rural uses (animal wastes and fertilizers) will, in many portions of the study area, be reduced and replaced by pollutants associated with urban activities.

The pollutants which might be found in runoff from urban areas are varied and originate from diverse sources. Sediments originate from eroded lands and street surface degradation. Automobile use within the study area will be responsible for the deposition of such pollutants as lead from exhaust emissions, asbestos from brake linings, and oil and grease that accumulate on streets and parking surfaces. Chlorinated hydrocarbons, nitrogen, and phosphorous could possibly accumulate in this runoff from pesticide and fertilizer use on landscaped areas. The contaminants which are commonly associated with urban and industrial areas are identified in Table II-B.

The primary method of reducing the discharge of contaminants in urban runoff is the establishment and maintenance of street sweeping services. The need for such services is essentially a tradeoff between the expected seriousness of urban pollutants in runoff waters and cost. Although an increase in contaminants associated with urban runoff can be expected to result from future urban development, significant impacts are not expected. This can be attributed to the lack of aquatic habitat near urban areas and the controlled planning of industrial developments within the study area.

As a result of a lawsuit, the Environmental Protection Agency (EPA) was ordered by a federal court to promulgate regulations requiring discharge permits for storm water runoff. Effective as of January 1, 1985, all storm water discharges are categorized into two groups for purposes of applying for a permit. Group I discharges are considered the most serious pollutants, and require extensive permit applications which include flow estimates and analyses quantifying the presence of pollutants.



Group II are considered less serious pollutants and require a much simpler permit application.

Under this ruling, the City of Moreno Valley could become responsible for all discharges into the storm water system. This means that the City would be responsible, under the permitting requirements, for commercial and industrial user's water discharge into the City's storm water system. Thus, the City would be responsible for the entire cost of accumulating the necessary information for submitting a permit application. It is also possible that the City could be required to construct a storm water treatment facility. It is currently unknown whether such measures would actually be required by the EPA. Should these EPA regulations be mandated, the financial impact resulting from future development would have to be evaluated and mitigated as part of the permit process.



Table II-B

## CONTAMINANTS ASSOCIATED WITH URBAN RUNOFF

Constituent	Source	Impact
Sediment	Construction activity, street deterioration, litter, natural erosion, vegetation, etc.	Causes filling of surface waters, and can cause oxygen depletion.
Nitrogen	Fertilizers, exhaust emissions, aerial fallout, organic materials, etc.	Acts as a nutrient to aquatic plants, linked to infant blood diseases in moderate concentrations.
Phosphorus	Fertilizers, organic materials, etc.	Acts as a nutrient to aquatic plants, can cause illness in man.
Sodium & Chlorides	Soil minerals.	Inhibits plant growth, impairs taste of water.
Heavy Metals		
Cadmium	Pesticides, industrial processes, mining wastes.	Toxic to man, animals, and aquatics; accumulates in the food chain.
Chromium	Industrial processes.	Toxic to plants and aquatics.
Copper	Industrial processes, algae control.	Impairs taste of water, toxic to certain aquatics, causes illness to humans in large concentrations.
Lead	Industrial processes, automobile exhaust emissions, aerial fallout.	Cumulative and toxic to man and animals.
Mercury	Industrial processes.	Toxic to man and animals.
Nickel	Industrial processes.	Toxic to citrus plants and some aquatics.
Silver	Industrial processes.	Toxic to aquatics.
Zinc	Industrial processes.	Toxic to plants and aquatics.

Table II-B

## CONTAMINANTS ASSOCIATED WITH URBAN RUNOFF

(continued)

Constituent	Source	Impact
Oil and Grease	Parking areas, streets, unimproved roads, industrial processes.	Produces tastes and odors, toxic to aquatics in sufficient quantities.
Asbestos	Automobile brake linings.	Suspected carcinogen.
Arsenic	Industrial processes.	Toxic to humans in sufficient concentrations, cumulative in human system, inhibits plant growth, toxic to some animals.
Chlorinated Hydrocarbons	Pesticides.	Toxic to certain animals, can be cumulative in food chain.
PCB's	Electrical industries, transformers.	Suspected carcinogen.

Source: Environmental Protection Agency



## E. BIOLOGICAL RESOURCES

### 1. EXISTING SETTING

The native vegetative habitats within the Moreno Valley study area have undergone considerable modification over the years. The majority of the valley floor within the study area has been cultivated in the past, resulting in the removal of native plant species. Introduced grassland species have since become naturalized. In addition, urbanization has removed large areas of natural vegetation. Many large mammals once inhabited the area, but have since retreated into nearby natural areas as they could not adapt to changing conditions. With the exception of the undeveloped portions of the study area, animal species currently found in the study area are limited to those capable of adapting to living in close proximity to man. Figure 6 depicts the distribution of biotic resources within the study area.

#### a. VEGETATION

Due to wide variations in soil types, terrain, and micro-climates within the Moreno Valley study area, several different plant communities occur. Grasslands are predominant in the undeveloped portions of the valley floor. Unless cultivated, they contain grasses, annuals, shrubs, and thistle, including Foxtail grass (*Hardeum*), Cheatgrass (*Bromus*), Mustards (*Brassia*), Lupines (*Lupinus*), and Russian Thistle (*Salsola kali*).

The second plant community within the study area is the Chamise Chapparral, found on the steep northerly slopes within the study area. Chamise (*Adenostoma fasciculatum*) is the dominant member of this community, accounting for up to 85 percent of the ground cover. Other common plants in this zone include Whitehorn Brush (*Ceanothus crassifolius*), Sugar Sumac (*Rhus Ovata*), Yucca (*Yucca whipplei*),



and Black Sage (*Salvia mellifera*), which can be found in small washes. Limited communities of *Penstemon antirrhinoides* can also be found in the study area.

The third common plant community found within the study area is Coastal Sage Scrub, generally found on northerly slopes. Coastal Sage Brush (*Artemesia californica*) is the dominant species on the north slopes while Brittlebrush (*Encelia farinosa*) dominates the south facing slopes. Other species commonly associated with this zone are: Black Sage (*Salvia mellifera*), White Sage (*Salvia apiana*), Yucca (*Yucca shidigera*), and Sugar Sumac (*Rhus Ovata*).

Other isolated areas containing springs or permanently moist soils, due to drainage for irrigation, support several water-oriented species. They include Elderberry (*Sambucus mexicanus*), Sunflower (*Helianthus*), Willows (*Salix*), Mulefat (*Baccharis viminalis*), Horsetweed (*Conyza coulteri*), and Wild Rhubarb (*Rumex hymenosepalum*). Miscellaneous plants found throughout the study area include Bush Buckwheat (*Eriogonum fasciculatum*), Deerweed (*Lotus scoparius*), Filaree (*Erodin*), Phacelias (*Phacelia*), and Chia (*Salvia columbariae*).

According to the California Department of Fish and Game, there has been no record of any special plant or natural plant communities that have been given Federal or State status as endangered, threatened, or rare within the Moreno Valley study area. However, the absence of special plant and natural plant communities does not mean that they do not exist within the study area, only that no occurrence data has been entered in their data base inventory. The Department of Fish and Game emphasizes that botanical studies have not been completed for the majority of the General Plan study area.

#### b. WILDLIFE

The wide variations in topography and vegetation within the undeveloped portions of the study area have resulted in a rich diversity of





animal life. Mammals include animals such as mule deer which can be found in the Box Springs Mountains and in the Badlands. Large carnivores, such as coyotes, bobcats, badgers, and grey fox also exist in the undeveloped portions of the study area. Opossums, raccoons, two species of skunk, cottontail rabbits, and many rodent species are other mammals common to the study area.

A wide variety of reptiles are found in the study area, particularly in the Box Springs Mountains. The Western Fence Swift and Granite Spiny Lizards are the most common lizards in the study area. Other lizards include the Western Alligator Lizard, the Western Whiptail Lizard, and the Coastal Horned Lizard. Snakes common to the area include the Gopher Snake, the Western Rattlesnake, the King Snake, the Rosy Boa, the Coachwhip Snake, and the Blue Racer.

Well over one hundred species of birds may be seen at various times throughout the year within the study area, either as residents or during migration. This is a high number of bird varieties for an inland area. Some of the common raptors to be seen are the Black-shouldered Kite which has "Fully Protected" State status, the Ferruginous Hawk, the Red Tailed Hawk, the Western Turkey Vulture, and the Prairie Falcon. Several species of owls are either residents of the area, or visitors, including the Barn Owl and the Great Horned Owl. March Air Force Base has been reported to contain one of the largest populations of Burrowing Owls in Southern California. A few of the many song birds in the area include the Bullock's Oriole, the Western King Bird, the Western Tanager, the Western Meadowlark, the Scrub Jay, the Mockingbird, the Red Shafted Flicker, and the Loggerhead Shrike.

According to the California Department of Fish and Game's Natural Diversity Data Base (NDDB), several recorded occurrences of endangered, threatened, or potentially threatened animals exist within the Moreno Valley study area. Figure 6 illustrates the location, the mapping precision, and the state and federal status classification of each of the following animals: Least Bells Vireo, Orange Throated Whiptail, California Black Tailed Gnatcatcher, San Diego Horned Lizard, Short Nosed

Pocket Mouse, and Stephens' Kangaroo Rat. The animal sightings vary from a specific occurrence within 80 acres (1/5-mile radius), to a non-specific occurrence within a 1 mile radius, to a general occurrence within a 5 mile radius. The absence of special animals from this section does not mean that they do not exist within the study area, only that no occurrence data has been entered in the data base inventory.

The San Jacinto Wildlife Preserve, one of 55 designated wildlife areas in the state, was established in 1983. Located east of Lake Perris as shown on Figure 6, the wildlife area consists of 12,000 acres of wildlife refuge. According to the State Department of Fish and Game, it is home to the endangered Stephens' Kangaroo Rat,<sup>2</sup> a variety of eagles, hawks, and migratory birds including the golden eagle, which may be using historical nesting grounds in the hills to the west of the wildlife area.

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<sup>2</sup>Subsequent to original publication, the U. S. Fish and Wildlife Service officially listed the Stephens' Kangaroo Rat as an endangered species.





# BIOTIC RESOURCES

## LEGEND

NDDB INVENTORY PRIORITY*		LEGAL STATUS**	SPECIES
1	A2.2	Federal: Candidate California: Endangered	Vireo Belli Pusillus- Least Bells Vireo
2	B3.1	Federal: Candidate 2	Cnemidophorus Hyperythrus- Orange Throated Whiptail
3	B2.2	Federal: Candidate 2	Poliptila Melanura Californica- California Black Tailed Gnatcatcher
4	B2.2	Federal: Candidate 2	Phrynosoma Coronatum Blainvillei- San Diego Horned Lizard
5	B2.2	None	Perognathus Longimembris Brevinasus- Short Nosed Pocket Mouse
6	B1.2	Federal: Candidate 1 California: Threatened	Dipodomys Stephensi- Stephens Kangaroo Rat

\* Natural Diversity Data Base (NDDB) Priority

A2.2 Very Rare and threatened species.

B1.2 Rare and threatened species or very rare, endangered or threatened subspecies.

B2.2 Rare and not threatened, or peripheral and endangered in California only, species or rare and threatened subspecies.

B3.1 Uncommon and declining, or peripheral and threatened in California only, species of uncommon and threatened, or peripheral and endangered in California only, subspecies.

\*\*Legal Status

Federal: Candidate 1—Candidate for Federal Listing, Category 1

Candidate 2—Candidate for Federal Listing, Category 2

California: Endangered—California Listed Endangered

Threatened—California Listed Threatened

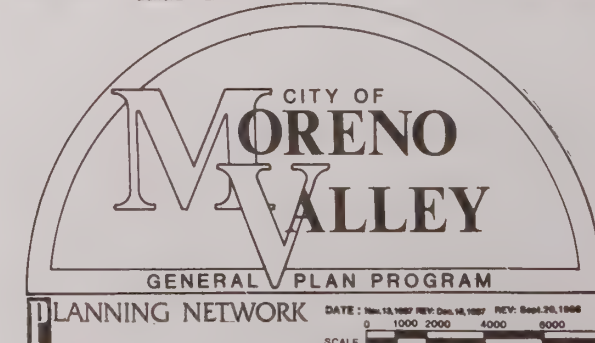
### 2 DEPICTS THE LOCATION AND MAPPING PRECISION OF POPULATIONS AND COMMUNITIES

- **SMALL CIRCLE** — Represents a **SPECIFIC** occurrence. Source information is accurate and detailed, enabling NDDB to map the occurrence within 80 acres (1/5 mile radius) of the actual sighting or collection or the element occurs in suitable habitat throughout an area of approximately 80 acres.
- **MEDIUM CIRCLE** — Represents a **NON-SPECIFIC** occurrence. Source information is not detailed enough for NDDB to map the locality exactly. The actual location is within the circle of 1-mile radius shown on the map or the element occurs in suitable habitat throughout an area approximately 1 mile in radius.
- **LARGE CIRCLE** — Represents a **GENERAL** occurrence. Source information is only detailed enough for NDDB to map the occurrence within a 5-mile radius or the element occurs throughout an area that is larger than 1 mile in radius, perhaps including the entire 5-mile radius shown, but exact boundaries are not known.

Note: The species inventoried by the Data Base are officially listed (State and Federal) endangered, rare, and threatened animals and plants, plus those considered by the scientific community to be deserving of such listing. Although the inventory does not include other more common animals and plants, such as those that may be important for game, commercial, or aesthetic reasons, such species are of concern and the law requires that they also be considered in an environmental assessment of any non-exempt project.

FIGURE 6

Rare, Endangered, Threatened  
Species Range (Stephens Kangaroo Rat) Source: Riverside County  
General Plan



Source: California Natural Diversity Data Base  
California Department of Fish and Game





## 2. ISSUES AND OPPORTUNITIES

Future urban development of the Moreno Valley study area will result in the loss of natural vegetation and wildlife habitats as development of various types spreads over the valley floor and into the surrounding hills. Because grasslands occupy the flat, developable portions of the study area, they will receive the greatest impact. However, grasslands are the least sensitive vegetation type present in the study area as they have been significantly altered in the past, primarily by agriculture and grazing activities. Loss of this vegetative type for expected future development is not considered to be significant.

The sensitive and/or significant vegetative communities present in the hillside portions of the Moreno Valley study area will be impacted to the extent that either agricultural or urban development and recreational activities move into the hillsides in the future, as well as to the extent that biological mitigation measures can be identified and implemented.

The limited riparian vegetation which exists along creek, stream, and other earthen drainage ways within the study area will also be impacted as existing flood control plans are implemented, and natural drainages are replaced with man-made structures. While it may be possible to preserve some drainages in their existing condition, revisions to existing master drainage plans will be necessary. In addition, retention of stream courses in a natural condition will require the establishment of maintenance mechanisms which could be costly.

The conservation of wildlife values within the study area would be greatly enhanced by the retention of surface flow courses in a natural condition. The inclusion of natural watercourses in the City's open space planning, along with the enhancement of these watercourses with native tree and shrub species, would represent a positive wildlife-related action. Extensive use of native plants in the City's landscaping programs would also be of benefit to the area's wildlife.





## F. ENERGY FACILITIES AND USAGE

### 1. EXISTING SETTING

#### a. ELECTRICITY

Electricity is supplied to individual customers within the study area by Southern California Edison (SCE). Energy is delivered to the study area by SCE, and is received at both the Maxwell substation located at Ironwood Avenue and Heacock Street, and at the Alessandro substation located near John F. Kennedy Boulevard and Kitching Street. SCE's 115 KV transmission lines bring power into these substations, where it is stepped down to 33 KV for distribution to its customers through a local service network emanating from the two substations.

As indicated in Figure 7, there are six major 115 KV transmission lines within the study area. These transmission lines have rights-of-way of varying widths between 20 to 50 feet with most of them being 30 feet in width.

Currently, one additional 115 KV transmission line is planned to pass through the study area. This line will be one mile in length, and will run from Moreno Beach Drive east along Ironwood Avenue to Redlands Boulevard, with a right-of-way width of 30 feet. SCE also plans to develop a future substation near Ironwood Avenue and Moreno Beach Drive, referred to as the "E" substation.

In addition to the major transmission lines within the study area, there also exists an extensive local service network of overhead and underground service lines. These service lines carry electricity from the substations to each SCE customer.




There are no known existing or potential local energy production facilities.

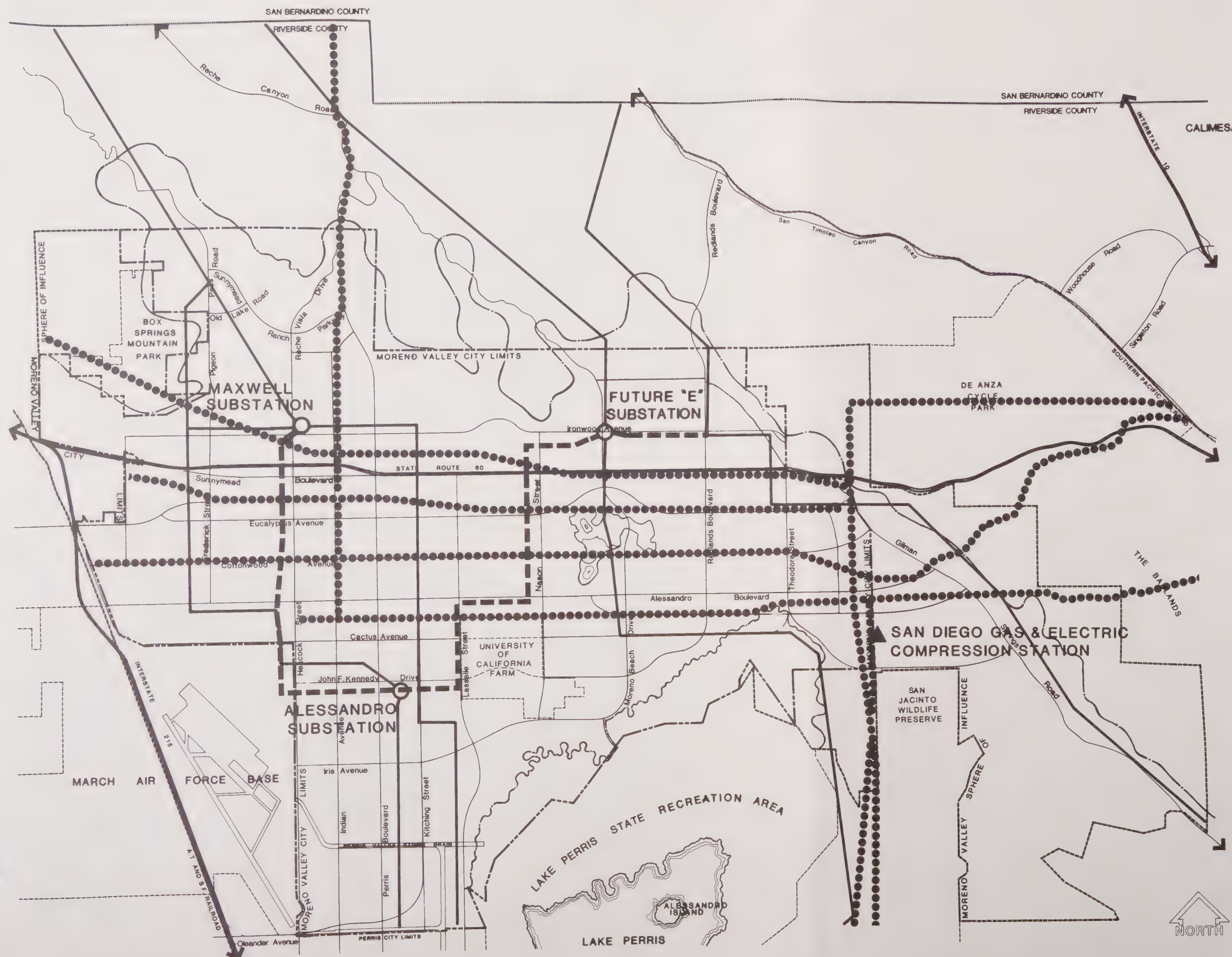




# UTILITIES

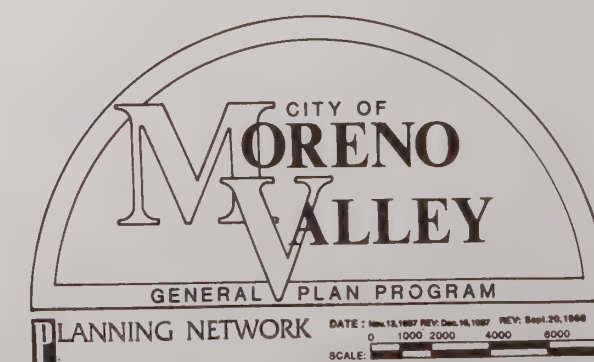
## LEGEND

-  SOUTHERN CALIFORNIA GAS 6"- TRANSMISSION LINES
-  EXISTING 115KV ELECTRIC TRANSMISSION LINES
-  FUTURE 115KV ELECTRIC TRANSMISSION LINES



Source: Southern California Edison  
Southern California Gas Company  
San Diego Gas and Electric

FIGURE 7







## b. NATURAL GAS

The study area is currently served by the Southern California Gas Company. The Gas Company maintains a comprehensive system of distribution and service lines within the incorporated and unincorporated portions of the study area.

In addition to local lines, two major 30-foot wide transmission line rights-of-way cross through the City of Moreno Valley. Line number "2001" is located in Cottonwood Avenue, and line number "2000" is located in Brodiaea Avenue. Both lines run east - west through the entire study area. There are also 8-inch and 12- inch major distribution supply lines (line number 1205) located in Indian Avenue. This line runs north from Brodiaea Avenue through the study area. All of these major natural gas lines are considered to be "high-pressure" lines, meaning that they contain over 60 pounds per square inch (psi).

The study area also contains a major natural gas compressor station, owned and operated by the San Diego Gas and Electric Company (SDG&E). The purpose of this station is to add pressure to the gas transmission lines for adequate gas flow to deliver natural gas to the San Diego area. It should be noted that although this station is owned by SDG&E, the gas lines running into and out of the station are owned by Southern California Gas Company.

## 2. ISSUES AND OPPORTUNITIES

### a. ENERGY TRANSMISSION CORRIDORS

The study area has a moderate number of transmission lines and rights-of-way passing through it. These energy corridors present both opportunities and constraints for future development.

On the positive side, future growth within the Moreno Valley study area can be supplied with adequate energy resources without major investment in transmission facilities. In addition, energy

transmission corridors present opportunities for the provision of recreational facilities and open space, especially for development of trails.

However, the negative aspects of these energy corridors must also be recognized. Energy lines and rights-of-way create artificial linear spaces stretching across portions of the study area. These spaces can either be left vacant to become future eyesores, or become potentially significant public and/or private expenditures due to required construction and maintenance of landscaped areas that may otherwise be unusable for open space or recreational purposes.

In addition, the major electrical transmission corridors within the Moreno Valley general plan study area include aboveground lines which create significant negative visual impacts. The aesthetic views within the valley are often marred by these major electrical lines.

#### b. ENERGY USE AND LOCAL FACILITIES

The current estimated consumption of electricity and natural gas within the study area is shown in Table II-C, and is projected to ultimate buildout of the study area (See Table II-D).

Consumption facts that were utilized in the calculation of both current use estimates and future demand were obtained from SCAG's Modified 1982 Growth Forecast Policy and the Southern California Air Quality Management District.

For comparison purposes, Tables II-C and II-D, provide current estimates of energy consumption while Table II-E predicts future energy demands for the entire SCAG region, and equates the energy needs within the study area as 4 percent of that region.

Table II-C

## CURRENT ENERGY NEEDS MORENO VALLEY STUDY AREA

### CURRENT DAILY ELECTRICAL CONSUMPTION (Estimated for December, 1987)

Energy Consumer	Number of Households <sup>1</sup> or Sq. Ft.	Daily Consumption Rate (Kwh)	Existing Daily Consumption
Single Family Residential	19,250	15.99/HH	307,808 Kwh
Multi Family Residential <sup>2</sup>	2,500	15.99/HH	39,975 Kwh
Commercial	4,164,170 SF	0.03/SF	124,925 Kwh
<b>TOTAL</b>			<b>472,708 Kwh</b>
SF: Square Feet Kwh: Kilowatt Hours HH: Households			

### CURRENT DAILY NATURAL GAS CONSUMPTION (Estimated for December, 1987)

Energy Consumer	Number of Households <sup>1</sup> or Sq. Ft.	Daily Consumption Rate (Kwh)	Existing Daily Consumption
Single Family Residential	19,250	222.17/HH	4,276,773 CF
Multi Family Residential <sup>2</sup>	2,500	130.50/HH	326,250 CF
Commercial	4,164,170 SF	0.085/SF	353,954 CF
<b>TOTAL</b>			<b>4,956,977 CF</b>
SF: Square Feet CF: Cubic Feet HH: Households			

<sup>1</sup> Based on 80,000 Estimated population, 3.2 persons per HH and 13% Vacancy.

<sup>2</sup> Assumes same ratio of MF/SF as of January, 1986.

Table II-D

## PROJECTED ENERGY NEEDS MORENO VALLEY STUDY AREA

### PROJECTED DAILY ELECTRICAL CONSUMPTION

Energy Consumer	Number of Households <sup>1</sup> or Sq. Ft.	Daily Consumption Rate (Kwh)	Projected Daily Consumption
Single Family Residential	54,546	15.99/HH	872,190 Kwh
Multi Family Residential	19,165	15.99/HH	306,448 Kwh
Retail Stores	13,213,232 SF	0.03/SF	396,396 Kwh
Offices	31,219,953 SF	0.03/SF	936,598 Kwh
<b>TOTAL</b>			<b>2,511,632 Kwh</b>
SF: Square Feet Kwh: Kilowatt Hours HH: Households			

### PROJECTED DAILY NATURAL GAS CONSUMPTION

Energy Consumer	Number of Households <sup>1</sup> or Sq. Ft.	Daily Consumption Rate (CF)	Projected Daily Consumption
Single Family Residential	54,546	222.17/HH	12,118,484 CF
Multi Family Residential	19,165	130.50/HH	2,501,032 CF
Retail Store	13,213,232 SF	0.10/SF	1,321,323 CF
Offices	31,219,953 SF	0.07/SF	2,185,396 CF
<b>TOTAL</b>			<b>18,126,235 CF</b>
SF: Square Feet CF: Cubic Feet HH: Households			

<sup>1</sup> Assumes 6% vacancy @ buildout spread evenly for SF/MF units.



Table II-E

**CURRENT AND PROJECTED ENERGY NEEDS  
SCAG REGION  
MORENO VALLEY STUDY AREA**

**CURRENT AND PROJECTED DEMAND FOR ELECTRICITY  
(Thousands of Kilowatt Hours per Year)**

Sector (Land Use)	Current SCAG (12/87 Est.)	Current Moreno Valley (as % of Region)	Projected SCAG (Yr. 2010)	Projected Moreno Valley (as % of Region)
Residential	26.7	.13 (.49%)	36.5	.43 (1.18%)
Commercial (Including Offices)	28.3	.05 (.18%)	33.6	.49 (1.46%)

**CURRENT AND PROJECTED DEMAND FOR NATURAL GAS  
(Millions of Cubic Feet per Day)**

Sector (Land Use)	Current SCAG (12/87 Est.)	Current Moreno Valley (as % of Region)	Projected SCAG (Yr. 2010)	Projected Moreno Valley (as % of Region)
Residential	849.02	4.6 (.54%)	749.65	14.6 (1.95%)
Commercial (Including Offices)	223.76	.35 (.16%)	202.10	3.5 (1.73%)

**NOTES:**

1. SCAG estimates for December, 1987 extrapolated from SCAG 1980 baseline estimate and SCAG 1982 modified projections for the year 2000.
2. Projections for local and regional demand assume buildout of Moreno Valley General Plan Land Use by the Year 2010.
3. Year 2010 projections for SCAG region reflect average of two methodologies which utilized different assumptions regarding per capita and household consumption trend from year 2000 - year 2010.

It should be noted that energy consumption for industrial facilities has been excluded because it cannot be accurately projected unless the use is known. For instance, a light manufacturing facility would use less electricity and/or natural gas than a facility engaged in the smelting of metals. Since exact industrial uses which will locate within the study area are not known, the projections shown above do not reflect total energy consumption within the study area. However, since industrial uses comprise a relatively small portion of the study area, and since the location of energy-intensive uses within the city would not be likely due to air pollution regulations, consumption by these uses would not substantially change the forecasts represented in the tables.

Currently, only the one previously mentioned new SCE transmission line is being planned for construction within the study area. According to SCE, there are no other future transmission lines planned at this time, and unless demand for electricity exceeds expected estimates, SCE should be able to meet all electrical requirements for the next several years.

Natural gas distribution facilities are also presently sufficient for serving the existing homes and businesses in the study area. Urban growth in close proximity to existing facilities would reduce the cost of utility construction and minimize the disruption of traffic flow in existing streets due to gas line construction. No major gas line construction is anticipated in the foreseeable future unless development patterns, occurring outside of the existing gas line service area, change.

#### C. ENERGY CONSERVATION

Energy conservation has become an increasingly important concern in the Southern California region, as well as on the national level. Increasing demands upon our limited supply of energy sources has led to an increased reliance on foreign energy fuels, expensive additional power-generation plants, and a myriad of support facilities related to the production and distribution of energy.

As a result, energy conservation has become a concern in both keeping costs and reliance on foreign energy supplies to a minimum, while at the same time, conserving the limited amount of nonrenewable energy resources which are available on a world-wide basis.

Opportunities for the City of Moreno Valley to insure energy savings are available as a result of the community-wide arrangement of land uses proposed as part of the General Plan and in the design of individual buildings. In addition, opportunities for energy conservation also exist in the design of individual neighborhoods and development sites. Energy efficient design measures can be categorized according to the "scale" at which they occur. Thus, energy efficiency measures can be identified at community, neighborhood, site, and building design scales.

On a community scale, the City of Moreno Valley can help reduce energy consumption in a number of ways. By encouraging increases in local employment opportunities, and by providing housing in proximity to employment, commercial, and recreational opportunities, energy consumed in automobile travel can be reduced.

Increasing development intensity can often decrease the amount of per unit infrastructure (streets, water lines, sewer, storm drains, and other utilities) required to support land uses, which in turn, can lead to a reduction in the energy required to construct and maintain the City's physical plant. For example, a reduction in street width means less energy for construction and maintenance, and also affects microclimates, reducing the space cooling and heating needs of adjacent structures. Similarly, the availability of street trees and shade trees can also affect microclimates and aid in energy conservation.

Energy used to operate a building can be categorized into direct and indirect uses. Space conditioning (heating and cooling) and appliance operation are the major direct uses. Water supply, wastewater treatment, and solid waste disposal consume energy indirectly. Production of commodities by industrial development is a direct

use of energy, while the production of food and commodities consumed by the residential sector is an indirect use of energy.

Site design affects energy consumption in the form of space heating and cooling in three ways. First, the effectiveness of passive solar design measures at the building scale is influenced by the orientation of structures. Orientation affects the amount of winter heat gain and the effectiveness of summer shading devices. Second, site design affects solar access to south-facing glazing and collectors. Third, it can influence natural ventilation and shading throughout the year. Site design also affects indirect uses of energy, including water use for irrigation, and the availability of usable outdoor environments.

Shared recreational facilities within a development, such as a clubhouse/swimming pool complex decreases energy consumption by reducing or eliminating the need for individual homeowners to install such facilities. They also reduce the need to drive to more centralized facilities, thereby minimizing transportation energy use.

Numerous methods are available to reduce energy consumption at the building scale, and are well documented. In general, these methods consist of passive measures such as insulation against unwanted heat gain or loss, maximization of natural lighting and ventilation, as well as active measures such as the provision of solar water heating. Many building scale energy conservation measures have been incorporated into Title 24 of the California Administrative Code, and are required of all residential structures.



## **G. ENVIRONMENTAL RESOURCES POLICIES**

### **Objective 1.0**

Eliminate erosion problems resulting from development activities.

#### **Policy Statements:**

- 1.1 Concurrent with the submittal of a grading plan, erosion control plans shall be submitted to the Engineering Department and approved by the appropriate departments prior to the approval of the grading plan.
  - a. Erosion control plans shall be prepared by a registered civil engineer and shall cover all areas impacted by the proposed grading.
  - b. The erosion control plans shall address methods of control (i.e. desilting basins, check dams, sandbagging, etc.), and interim storm drain construction if required.
- 1.2 Require that grading plans include appropriate and feasible measures to minimize fugitive dust. Potential measures include:
  - a. Regular watering of cleared areas.
  - b. The establishment of maximum speed limits within construction areas.
  - c. Minimizing the extent of cleared areas at any given time.
  - d. The inclusion of sprinkler irrigation systems.
  - e. The establishment of vegetative cover as soon as possible after grading is completed.

- f. The use of soil tackifiers, soils stabilization mulches, and/or oil emulsions, where feasible.
- 1.3 Erosion control measures shall be in place prior to any forecasted rain and throughout the rainy season.
- 1.4 Erosion control measures shall be implemented as soon as possible during the grading operation, and shall remain in operation until improvement construction has begun within the controlled area.
- 1.5 All fill slopes over three (3) feet and all cut slopes over five (5) feet high shall be landscaped prior to the issuance of a certificate of occupancy, and as soon as practicable after completion of final grading.
- 1.6 Consistent with the need to conduct grading operations in an economical manner, achieve balanced onsite grading operations, and to reduce erosion impacts to a level of insignificance, where feasible:
  - a. Discourage mass grading in favor of phased grading.
  - b. Limit the areal extent of clearing and grubbing operations to the minimum necessary.

## **Objective 2.0**

Maintain groundwater supplies at least in their present quantity and quality to meet present and potential future needs.

### **Policy Statements:**

- 2.1 New land uses may use individual wells only where it is not feasible to connect to the community water supply, and only if it can be proven that an adequate supply of good quality groundwater is available.



- 2.2 The City shall ensure that all projects comply with discharge permit requirements established by the Regional Water Quality Control Board.
- 2.3 The City shall ensure the protection of natural watersheds as follows:
- a. Retain watershed areas with slopes greater than 25 percent in large acreages.
  - b. Limit clearing of natural vegetation in watershed areas with slopes of less than 25 percent to that necessary for access roads, homesites, and fire breaks.
- 2.4 Major creeks and other natural drainage courses shall be retained in their natural state and the natural hydrology shall be preserved, unless the protection of life and property necessitate improvement as concrete channels.
- 2.5 The City, through its development review process, shall assess residential, commercial and industrial projects for their potential impact on the quality of the aquifer, and shall not approve projects which would degrade water quality levels below federal and state standards.
- 2.6 The City shall assure the continued adequate supply of groundwater, as well as maximum recovery, by an assessment of the potential adverse environmental impacts of residential, commercial, and industrial projects on the City's groundwater system, in terms of consumption of supplies, as well as their potential for the elimination of existing watershed and recharge areas.
- 2.7 The City shall encourage minimizing the amount of impervious surfaces as an aid to groundwater recharge.

- 2.8 To the extent possible, preserve floodplain and aquifer recharge areas which are the best sites for groundwater recharge in open space and other uses which maximize pervious surfaces.

### Objective 3.0

Minimize the consumption of water through a combination of water conservation and reuse.

#### Policy Statements:

- 3.1 The use of primarily native and drought-tolerant plants as outlined in Table II-F shall be required through development review and the approval of landscape plans, unless reclaimed water is being used for irrigation purposes.
- a. The use of lawn areas within multiple family, commercial, industrial, and recreational developments, as well as within parkway areas shall be minimized by limiting its use to lawn dependent areas such as playing fields.
  - b. If reclaimed water is to be used for irrigation, turf areas consisting of rye or bluegrass species or other high water requirement turf types shall be encouraged. Where domestic water supplies are used in the irrigation of turf areas, the use of tall fescue varieties or other warm season turf shall be encouraged.





Table II-F

## DROUGHT TOLERANT PLANT PALETTE

## PLANT NAME

## MEDIUM TO LARGE TREES

1. *Brachychiton populneus* (Bottle Tree)
2. *Eucalyptus camaldulensis* (Red Gum)
3. *Eucalyptus cladocalyx* (Sugar Gum)
4. *Eucalyptus microtheca* (Flodded Box)
5. *Melaleuca linariifolia* (Flaxleaf Paperbark)
6. *Melaleuca styphelioides* (Black Tea Tree)
7. *Schinus molle* (California Pepper)
8. *Tristania conferta* (Brisbane Box)<sup>1</sup>
9. *Zelkova serrata* (Japanese Zelkova)

## SMALL TREES

1. *Acacia baileyana* (Bailey Acacia)
2. *Acacia baileyana* 'Purpurea' (Purple-leaf Acacia)
3. *Acacia melanoxylon* (Blackwood Acacia)
4. *Albizia julibrissin* 'Rosea' (Silk Tree)
5. *Ceratonia siliqua* Carob (Male Only)<sup>1</sup>
6. *Cupressocyparis leylandii* (Leyland Cypress)<sup>1</sup>
7. *Koelreuteria paniculata* (Goldenrain tree)
8. *Rhus lancea* (African Sumac)

## SPECIMEN/ACCENT TREES

1. *Lagerstroemia indica* (Crape Myrtle)

## CONIFERS

1. *Pinus coulteri* (Coulter Pine)
2. *Pinus halepensis* (Aleppo Pine)<sup>1</sup>
3. *Pinus pinea* (Italian Stone Pine)<sup>1</sup>

<sup>1</sup> Trees suitable for application as buffer treatments.

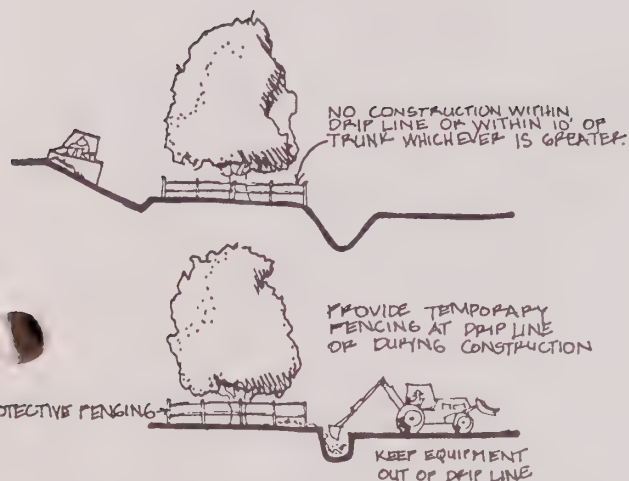
Table II-F

## DROUGHT TOLERANT PLANT PALETTE

(continued)

PLANT NAME	
SHRUBS	
1.	<i>Acacia melanoxylon</i> (Blackwood Acacia) <sup>2</sup>
2.	<i>Ceanothus</i> 'Julia Phelps' (Julia Phelps Ceanothus)
3.	<i>Ceanothus rigidus</i> 'Snowball' (Snowball Ceanothus)
4.	<i>Cistus ladanifer</i> (Crimson-Spot Rockrose)
5.	<i>Cistus purpureus</i> (Orchid Rockrose)
6.	<i>Cotinus coggygria</i> 'Purpureus' (Purple Smoke Tree)
7.	<i>Dodonaea viscosa</i> 'Purpurea' (Purple Hop Bush) <sup>2</sup>
8.	<i>Feijoa sellowiana</i> (Pineapple Guava) <sup>2</sup>
9.	<i>Fremontodendron californicum</i> (Common Flannel Bush)
10.	<i>Heteromeles arbutifolia</i> (California Holly) <sup>2</sup>
11.	<i>Leptospermum laevigatum</i> (Austrian Tea Tree) <sup>2</sup>
12.	<i>Melaleuca nesophila</i> (Pink Melaleuca)
13.	<i>Myrsine africana</i> (African Boxwood)
14.	<i>Myrtus communis</i> (True Myrtle) <sup>2</sup>
15.	<i>Nerium oleander</i> (Oleander) <sup>2</sup>
16.	<i>Osmanthus ilicifolius</i> (Holly-leaf Osmanthus)
17.	<i>Plumbago auriculata</i> (Cape Plumbago)
18.	<i>Teucrium fruticans</i> (Bush Germander)
19.	<i>Juniperus chinensis</i> 'Pfitzerana' (Pfitzer Juniper)
GROUNDCOVER ACCENTS	
1.	<i>Agapanthus africanus</i> (Lily-of-the-Nile)
2.	<i>Artemisia schmidtiana</i> 'Silver Mound' (Angel's Hair)
3.	<i>Moraea iridioides</i> (African Iris)
GROUNDCOVERS	
1.	<i>Acacia redolens</i> (Acacia)
2.	<i>Arctotheca calendula</i> (Cape Weed)
3.	<i>Armeria maritima</i> (Common Thrift)
4.	<i>Baccharis pilularis</i> 'Twin Peaks' (Coyote Brush)
5.	<i>Ceanothus griseus horizontalis</i> 'Santa Ana'
6.	<i>Cotoneaster dammeri</i> 'Lowfast' (Bearberry Cotoneaster)
7.	<i>Juniperus chinensis procumbens</i> 'Nana' (Japanese Garden Juniper)
8.	<i>Juniperus horizontalis</i> 'Blue Rug' (Blue Rug Juniper)
9.	<i>Rosemarinus officinalis</i> (Rosemary)

<sup>2</sup> Shrubs suitable for application as buffer treatments.



- 3.2 In conjunction with the review and approval of all single family detached residential model home complexes, the City shall require, at minimum, that at least one or more of the units incorporate a drought-tolerant planting concept in accordance with Table II-F. The provision of information to prospective home buyers regarding drought-tolerant planting concepts shall also be required.
- 3.3 The City shall encourage the preservation of existing native trees and shrubs, as established plants are often adapted to low water consumption.
- 3.4 The City shall encourage the installation of efficient irrigation systems which minimize runoff and evaporation and maximize the water which will reach the plant roots. Drip irrigation, soil moisture sensors and automatic irrigation systems are a few methods of increasing irrigation efficiency.
- 3.5 The City shall encourage the use of reclaimed wastewater, stored rainwater, or household gray water for irrigation.
- 3.6 The extensive use of mulch in all landscape areas should be employed to improve the water-holding capacity of the soil by reducing evaporation and soil compaction.
- 3.7 All new construction should, where applicable, incorporate the following interior water conservation measures:
- Pressure reducing valves that would reduce supply line pressures in excess of 50 psi to 50 psi or less.
  - Flush valve operated water closets which are limited to three gallons per flush.
  - Drinking fountains equipped with self-closing valves.

- d. The insulation of all hot water lines for the purpose of providing hot water faster with less water waste, and keeping hot water pipes from heating cold water pipes.
- e. Thermostatically controlled mixing valves for baths and showers, and water conserving models of washers and dishwashers.
- f. Low flow faucets and shower heads.

#### **Objective 4.0**

Maintain, protect, and preserve biologically significant habitats within the study area, including the San Jacinto Wildlife Preserve, riparian areas, habitats of rare and endangered species, and other areas of natural significance as part of the need for development of a balanced community.

#### **Policy Statements:**

- 4.1 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers and be set back a sufficient distance to eliminate significant impacts to such areas.
- 4.2 Require that development occurring adjacent to the San Jacinto Wildlife Preserve provide appropriate mitigation for potential impacts to the preserve. Potential measures include, but are not limited to, the following:
  - a. Project design so as to minimize or eliminate the potential for unauthorized entry into the wildlife area.
  - b. The creation of buffer areas adjacent to the preserve, incorporating the most passive uses of the adjacent property.



- c. Provide wildlife dispersion corridors linking the wildlife preserve to the Badlands area, including roadway crossings.
- d. Provide wildlife movement linkages to water sources.
- e. Protect the visual seclusion of large forage areas from road intrusion by vegetative buffering.
- f. Provide vegetation that can be used by wildlife for cover along roadsides.
- g. Avoid intrusion of night lighting into the wildlife preserve.

4.3 Require biological assessments to be performed by a qualified biologist in areas where the existence of rare or endangered species is known or can reasonably be expected to exist, using Figure 6 as a guide. In addition, require the implementation of the recommendations included in biological reports as a condition of approval.

4.4 The City shall enforce the preservation of existing mature trees and vegetation based upon the following criteria:

- a. Rural and hillside residential development shall be permitted only to remove such natural vegetation as is necessary to locate homesites and construct access roads.
- b. Mature trees of 4" diameter or greater shall be protected from indiscriminate cutting or removal.
- c. All mature trees to be preserved within a development project shall be enclosed by an appropriate construction barrier, such as chain link

fencing or other means acceptable to the City, prior to the issuance of any grading permit or building permit, and prior to the commencement of work.

- d. Required barriers referenced in Item c above are to remain in place during all phases of construction and may not be removed without the consent of the City.
- e. No substantial disruption or removal of the structural or absorptive roots of any trees shall be permitted.
- f. No fill material shall be placed within three (3') feet from the outer trunk circumference of any tree.
- g. No fill material shall be placed within the dripline of any tree without the approval of a qualified arborist or landscape architect.
- h. No substantial compaction of the soil within the dripline of any tree being preserved shall be undertaken.
- i. No construction, including structures and walls, that disrupt the root system of a preserved tree shall be permitted.

4.5 Where the removal of existing trees is reasonably unavoidable, all mature tree removals (those with 4" diameters or greater), require replacement at a 3:1 ratio, with 15 gallon minimum sized nursery trees, with the following exceptions:

- a. Permit relocation within the site in lieu of replacement at a 3 to 1 ratio if determined feasible by an arborist or landscape architect.
- b. Where citrus, or other tree types planted for agricultural production or natural groves exist onsite and render replacement at a 3 to 1 ratio impractical, preserve such groves or

portions thereof, to the extent feasible, for incorporation into the design of the project. (i.e. models, natural landscape, common open space, trail dedications, etc.)

4.6 The City's policies relative to tree maintenance shall reflect the latest research base knowledge in tree care policies.

a. The maintenance of trees standing upon private property or homeowner association owned property shall be the responsibility of the owner of those properties.

b. Builders and developers shall be required to prune, treat, and maintain existing trees and plant new ones within future rights-of-way, public lands, common areas, and development projects in such a fashion that when the trees become City, association, or private property, the trees will be free of various damage, pests, diseases, and dead branches. The trees shall be in good biological and aesthetic condition upon acceptance.

c. Pruning prior to transfer of mature windrows to the City, associations, or private owners must be done by builders and developers as follows:

(1) Leaves, debris, dead branches and suckers accumulated along the base of the windrow shall be removed periodically, or as may be necessary for reasons of public health and safety.

(2) Dead or hazardous branches shall be removed, and the tree structure trimmed, as may be necessary to protect public health, safety, and improve aesthetics.

(3) Trees should be trimmed to protect their natural structure with the understanding that such practices as topping, pollarding, or trunk stripping shall not be permitted.

(4) Unsightly or poorly crotched limbs and heavily leaning branches shall be removed.

(5) All cuts are to be made flush and/or in line with proper arboricultural practices.

(6) Dead, diseased, or dying trees shall be removed as may be necessary, and shall be replaced with 15 gallon trees.

#### Objective 5.0

Encourage efficient use of energy resources by minimizing the consumption of energy resources to the minimal amount needed to support existing and planned land uses, through a combination of efficient land use patterns and passive and active energy conservation systems.

#### Policy Statements:

5.1 The City, in conjunction with its review of residential, commercial, and industrial development applications, shall encourage innovative building, site design, and orientation techniques which minimize energy use including, but not necessarily limited to the following:

- a. Within multiple family residential, commercial, and industrial projects provide for clusters of buildings with protected indoor or plaza/open areas to promote wind and sun protection.
- b. Construct internal roadways at the minimum widths necessary for safe circulation in order to minimize solar reflection and heat radiation.



- c. Where possible, locate reflective surfaces (i.e. parking lots) on the north and east side of buildings; alternatively, where parking areas must be located to the south or west of buildings, provide landscaping to reduce heat gain.
- d. Orient the maximum amount of glass possible toward the south, the side with the greatest amount of solar collection (heat gain potential), in combination with other measures for shading to mitigate summer heat.
- e. Use appropriate building shapes and locations in order to promote maximum feasible solar access of individual units.
- f. Design individual buildings to maximize natural internal lighting through interior court wells, interior court areas, skylights, clerestory windows, and building shapes.
- g. Use canopies and overhangs to provide shade to windows during summer months, while allowing for reflection of direct sunlight through the windows during winter months (care should be taken to assure that overhangs and canopies do not prevent sufficient light for daytime purposes).
- h. Incorporate the use of deciduous trees in landscaping plans, especially near buildings and around expanses of paved areas.
- i. Incorporate deciduous vines, trellises and canopies to shade south and westward facing walls, to cool them in summer months.
- j. Provide wind breaks to protect against winter and Santa Ana winds.

- k. Trees and hedges planted close to buildings should be located so as to channel beneficial cooling breezes through openings.
- 5.2 All new residential construction shall comply with the provisions of Title 24 of the California Administrative Code.
- 5.3 The City shall take full advantage of the CEQA process as a tool for evaluating energy use and potential energy impacts, and for implementing appropriate energy conservation measures.
- 5.4 All new multi-family residential developments shall be required to install solar energy systems for the heating of swimming pools.
- 5.5 Energy efficient modes of transportation and fixed facilities which establish transit, bicycle, equestrian, and pedestrian as desirable alternatives shall be encouraged.
- 5.6 Locate areas planned for multiple family density development within areas of high transit potential and access.
- 5.7 The City should encourage utility rate revisions that would provide incentives for the conservation of energy by the shifting of energy usage to non-peak hours.
- 5.8 The City should actively support efforts at the state or federal levels relative to the funding of research and/or the development of alternate energy sources.
- 5.9 The City should maintain open communication links with other local, regional, state or federal agencies regarding the evaluation of current energy problems and state-of-the-art technologies and practices.
- 5.10 Support state and federal legislation that would, in an appropriate manner, accomplish the elimination of wasteful energy consumption.

- 5.11 The City shall emphasize fuel efficiency in the acquisition and use of City-owned vehicles, and support all programs which would serve to enhance or encourage the use of nonmotorized and public transit systems.
- 5.12 The City shall encourage efficient energy usage in all public buildings within its jurisdiction.
- 5.13 The City shall increase public awareness of energy conservation technology and practices by the dissemination of information that describes energy conservation practices for community members to follow and encourages ongoing communication and the generation of ideas, plans, and programs for the future development of Moreno Valley as an energy efficient city.
- 5.14 The City shall promote the application of active solar energy systems in single family residential units by facilitating, where possible, the efforts of federal and state entities in the allocation of cost incentive programs.





## **H. IMPLEMENTATION PROGRAMS**

1. Enact provisions within the grading and subdivision ordinances to require special precautions that minimize soil erodibility by incorporating provisions relating to surface drainage and restoration of the natural drainage surface, the attenuation of slope instability, reductions in the amount of impermeable surface, and techniques that enhance groundwater recharge and local water recovery.
2. Develop plans for the multiple use of lands under the control of the Riverside County Flood Control District, for the protection of natural watersheds, drainage beds and recharge areas in order to assure the maximum recovery of local water, and to protect riparian habitats and wildlife.
3. Develop a plan to maximize the use of reclaimed water in various parts of the City in cooperation with EMWD.
4. Develop a xeriscape landscape concept at City Hall as an educational feature.
5. Investigate the feasibility of subsidizing the cost of water or the installation of facilities for the use of reclaimed water for the irrigation of agricultural crops as a means of implementing water conservation.
6. Exercise authority under the provisions of Government Code Section 66474 and deny those subdivision designs and improvements which are likely to cause significant adverse damage to biotic resources.
7. Amend the Zoning Code to include a Tree Preservation Ordinance regarding the removal of mature trees and including other regulatory provisions as necessary to implement the policy statements contained within the Environmental Resources Element.

8. Utilizing the recommended Palette of Trees shown in Table II-F, formulate guidelines that will establish preferred planting schemes as applications for specific species as may be appropriate to assure aesthetically pleasing landscape statements that constitute practical and functional design.
9. Establish guidelines for the maintenance of trees that will assure use of the latest research base knowledge in tree care practices.
10. Establish a pro-active approach in the management of trees by actively providing guidelines to property owners for the selection, planting and maintenance of the landscape trees.
11. Incorporate where feasible, the input of a certified arborist, landscape architect, and/or qualified horticulturalist into the review and approval of landscape proposals through the design review process.
12. Coordinate a volunteer community tree planting program.
13. Establish and expand landscape maintenance districts for streetscapes and common areas.
14. Investigate the feasibility of adopting an Energy Ordinance that will incorporate retrofit provisions for the installation of energy conservation measures on existing structures, solar pool and hot tub provisions that will prohibit natural gas heaters as the primary energy source, and solar access provisions that will require industrial projects to be sited to facilitate photovoltaic electric generating units.
15. Implement, through the Subdivision Ordinance or through other appropriate mechanisms, the Solar Rights Act of 1978 which addresses structural orientation for solar access, and includes such concepts as solar easements, functional landscaping, street layout, and architectural designs that reduce embodied energy costs.

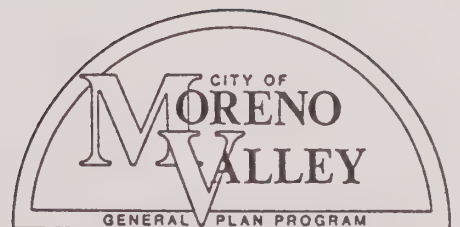
16. Adopt zoning ordinance provisions that facilitate solar access through lot size, configuration, and orientation; building height, setbacks, and coverages, and renewable energy resource systems with permitted and accessory uses. The amended ordinance should also include such energy related provisions as parking lot shading requirements, as well as provisions for the application of energy conservation measures in subdivisions, site plans, conditional use permits, and other land use entitlements.
17. Consider available regulatory mechanisms that reduce monthly utility bills for residential buildings through the use of passive and active systems.





# III. PUBLIC HEALTH AND SAFETY ELEMENT

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### III. PUBLIC HEALTH AND SAFETY ELEMENT

#### A. INTRODUCTION

The Public Health and Safety Element contains an evaluation of natural and man-made environmental conditions which may constitute certain levels of health and safety hazard to the public. In the context of the overall General Plan, this element complements the Environmental Resources Element and completes Moreno Valley's environmental baseline. In terms of function, this element identifies the constraints to urban, rural, and agricultural development that must be considered within development strategies.

The Public Health and Safety Element is divided in several major sections as follows:

- Geology and Seismicity
- Flood Hazards
- Noise
- Air Quality
- Crime and Prevention Services
- Fire Hazards and Prevention Services
- Hazardous Materials
- Emergency Services
- Aircraft Crash Hazards





## B. PUBLIC HEALTH AND SAFETY GOALS

It is the goal of the Public Health and Safety Element of the Moreno Valley General Plan to achieve:

- Acceptable levels of protection from natural and man-made hazards to life, health, and property.
- Emergency services which are adequate to meet minor emergency and major catastrophe situations.



## C. GEOLOGY AND SEISMICITY

### 1. EXISTING SETTING

#### a. GEOLOGY

The Moreno Valley study area lies primarily on a structural block of the earth's crust known as the Perris Block. The Perris Block is a geologic unit within one of the major geologic provinces of Southern California known as the Peninsular Range Province. The Perris Block consists of a 20 by 50 mile mass of granitic rock, generally bounded by the San Jacinto fault, the Elsinore fault, and the Santa Ana River, with the southeast boundary being largely ill-defined. The Block has had an apparent history of vertical land movements of several thousand feet due to shifts in the Elsinore and San Jacinto faults.

Moreno Valley lies at the eastern margin of the Perris block. The geologic and seismic setting of the Moreno Valley is dominated by the close proximity of the "active" San Jacinto fault and the "potentially active" Casa Loma fault, both located in the northeastern portion of the study area (see Figure 8). Earth materials on the valley floor are Pliocene-Pleistocene alluvium ranging from relatively thin to intermediate thickness, overlying a primarily granitic bedrock.

The rocky, mountainous areas within the study area, including the Box Springs Mountains and the Mount Russell area, have an underlying granitic bedrock that consists essentially of quartz diorite, and display frequent granite rock exposures, outcrops, and large weathered granite boulders.

The Badlands range, along the eastern margin of the study area, comprises the deposits of what was once an inland sea, later elevated above the water and deformed by geologic processes, before becoming severely eroded to its present state. This area is made up of quaternary alluvium, consisting of folded sedimentary sandstone, siltstone, and shale rock.


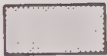







# GEOLOGY

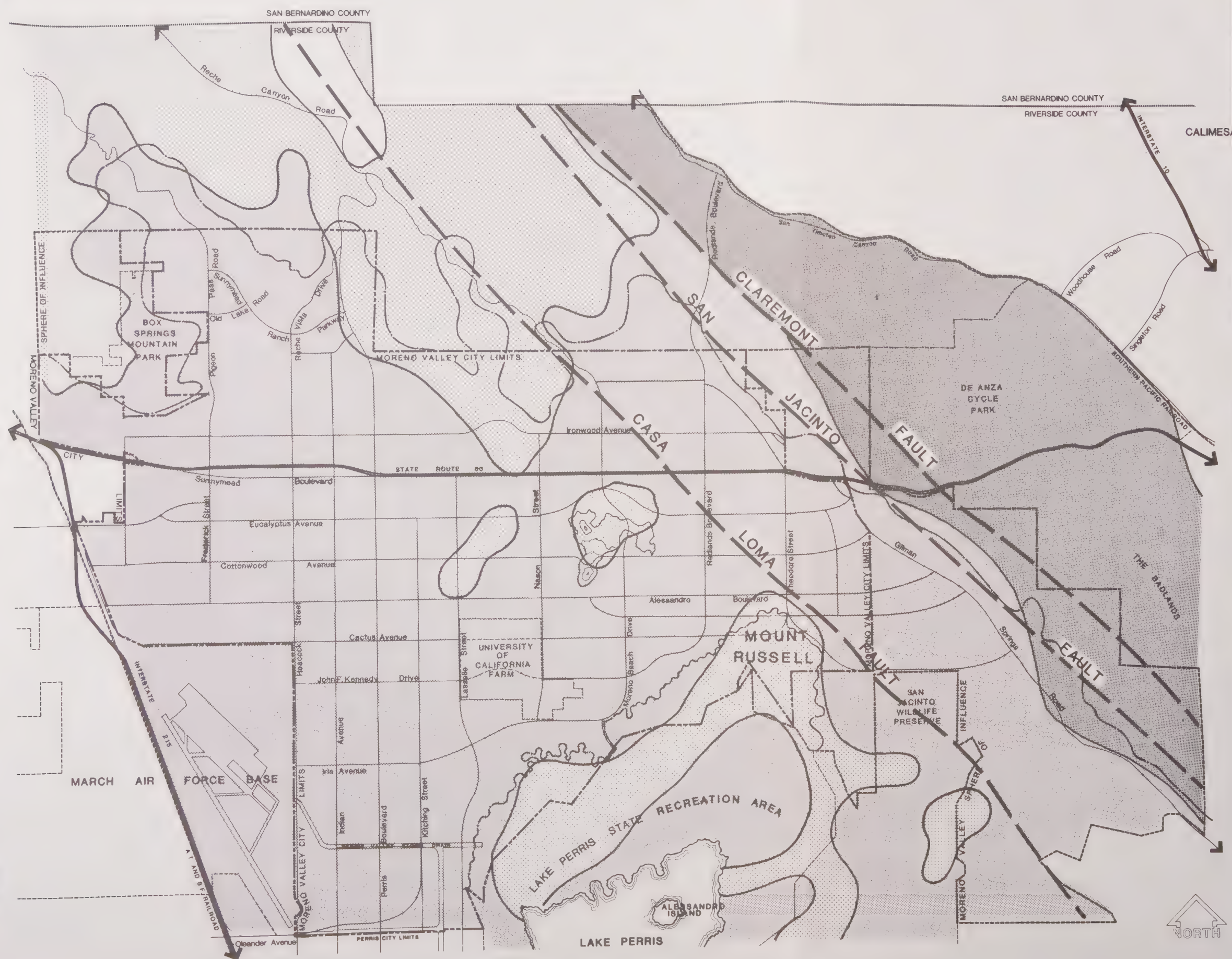
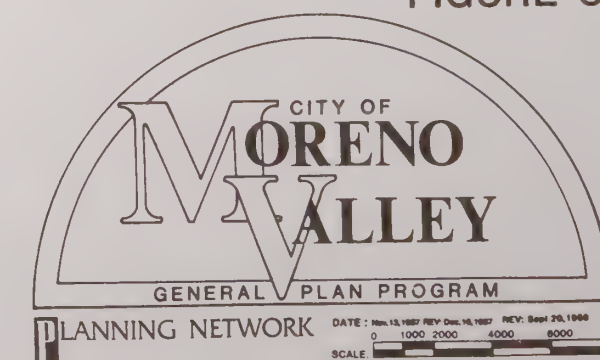
## LEGEND

-  GRANITE ROCKS OF THE SOUTHERN CALIF. BATHOLITH
-  QUARTERNARY ALLUVIUM
-  SEMI CONSOLIDATED SANDSTONE, SILTSTONE, AND BEDS OF GRAVEL

Note: This map is not a substitute for detailed Alquist-Priolo Special Studies Maps or Riverside County Hazard Management Zone Maps. For accurate sitings refer to California State and Riverside County Geologists.

Source: Generalized Geologic Map of Part of the Northern Peninsular Ranges, 1985. University of California Riverside, Campus Museum Contributions No. 1, page 64.

FIGURE 8







#### b. SEISMICITY

The primary seismic hazards facing Moreno Valley are basically twofold: ground rupture and the resulting seismic shaking. Ground rupture refers to the displacement which occurs during an earthquake. Such displacement of the earth's surface may be vertical, horizontal, or both, and can be up to 30 feet or more in a major earthquake. Utilities, roads, and other linear features are particularly vulnerable to damage where they cross faults as a result of ground rupture.

To minimize damage to human occupancy structures, the State of California has adopted the Alquist-Priolo Special Studies Zone Act. Under this act, the State Geologist has mapped "Special Studies Zones" along the state's active and potentially active faults. Prior to approval of structures for human occupancy within a special study zone, a geologic study must be undertaken to determine the precise location and necessary setbacks from identified faults. A Special Studies Zone has been established within the Moreno Valley study area along the San Jacinto fault. Although an Alquist-Priolo Special Studies Zone has not been established for the Casa Loma fault, a Riverside County "Hazard Management Zone", similar to an Alquist-Priolo Zone was established for this fault prior to incorporation. Earthquake faults and their special study areas passing through the study area are located in Figure 9.

The most widespread effect and the overall greatest cause of damage in an earthquake is ground shaking. The intensity of ground shaking in an earthquake depends on several factors including the magnitude of the earthquake, distance from the earthquake epicenter, and soil conditions. In general, the larger the magnitude of an earthquake and the closer a site is to the epicenter of the event, the greater will be the effects. However, soil conditions can also amplify earthquake shock waves. Generally, the shock waves remain unchanged in bedrock, are amplified to a degree in thick alluvium, and are greatly amplified in thin alluvium.







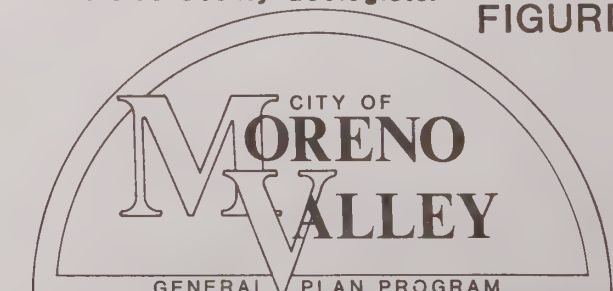
# SEISMIC ZONES

## LEGEND

- ACCURATELY LOCATED FAULT
- APPROXIMATELY LOCATED FAULT
- INFERRED FAULT
- QUERY INDICATES UNCERTAINTY OF LOCATION
- BOUNDARY OF COUNTY FAULT HAZARD ZONE
- BOUNDARY OF ALQUIST-PRIOLO SPECIAL STUDY ZONE (State Identified Area of Potential Fault Hazards)
- GROUND SHAKING ZONE BASED ON DISTANCE TO CAUSATIVE FAULT
- BOUNDARY OF GROUND SHAKING ZONE BASED ON SOIL AND ROCK CONDITIONS
- A BEDROCK (Weathered)
- B ALLUVIUM OF INTERMEDIATE THICKNESS (200'-2000')
- C THIN PLEISTOCENE ALLUVIUM (10'-200')
- SLOPE INSTABILITY  
1 VERY LOW  
2 LOW  
3 MODERATE  
4 HIGH (Probable landslide)

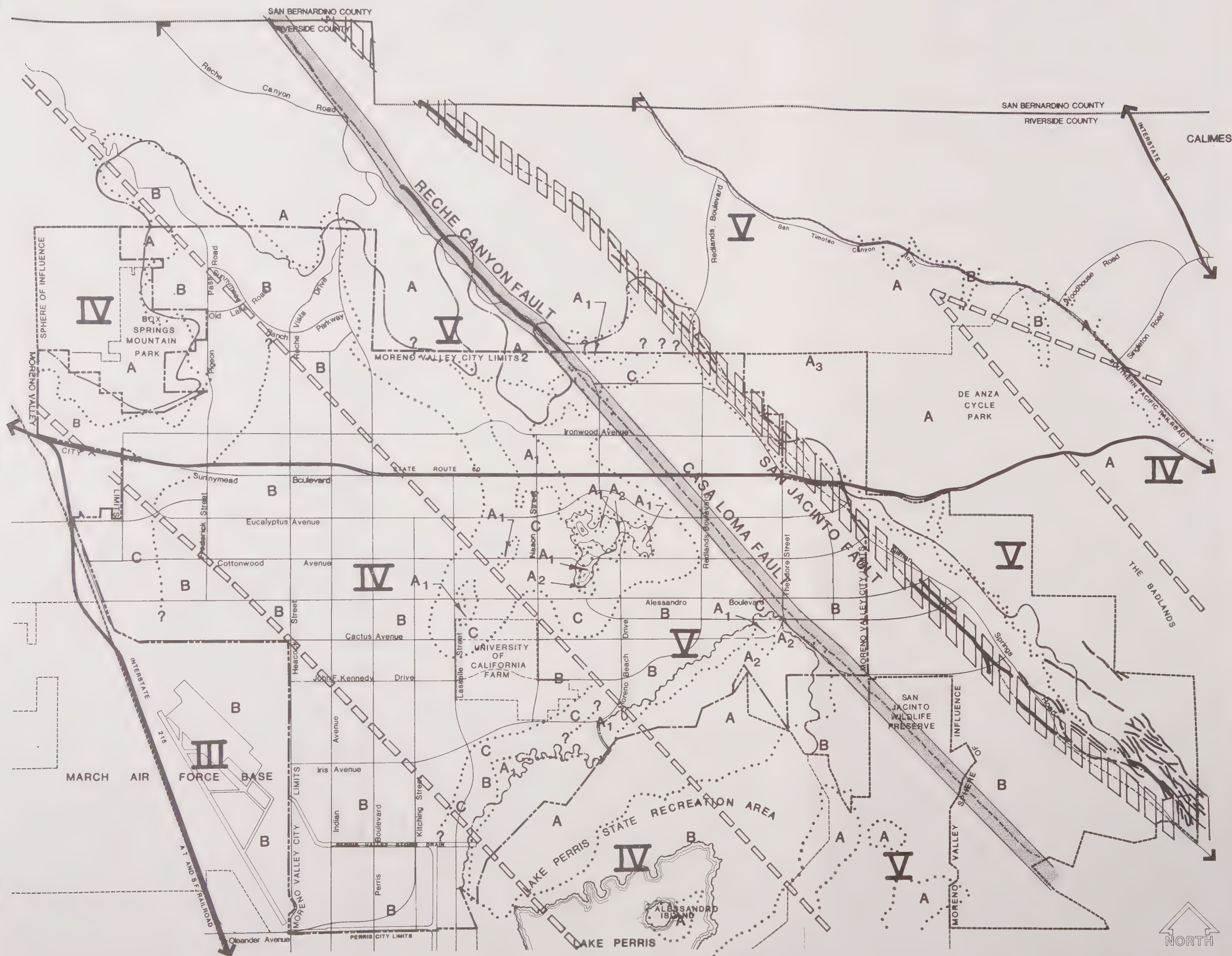
Note: This map is not a substitute for detailed Alquist-Priolo Special Studies Maps or Riverside County Hazard Management Zone Maps. For accurate sitings refer to California State and Riverside County Geologists.

FIGURE 9



PLANNING NETWORK DATE: Nov. 15, 1987 REV: Dec. 16, 1987 REV: Sep. 20, 1988  
SCALE: 0 1000 2000 4000 6000 8000

Source: California Division of Mines and Geology.





Two basic scales are used to measure earthquakes. The first is the Richter Scale, which objectively measures the magnitude (energy released) in an earthquake. The Richter Scale is a logarithmic scale where an increase of 1.0 on the scale represents an increase of 10 in the amplitude of the recorded wave, and an increase of about 32 in the energy release. Thus, a 6.0 magnitude earthquake releases 32 times as much energy as a 5.0 magnitude event.

In comparison, the Modified Mercalli Scale subjectively measures the effects of earthquake intensity at a particular location. Thus, while an earthquake will have one magnitude, it will have several intensities based on varying levels of damage in different areas. The Modified Mercalli Scale ranges from I, not felt except by a few under especially favorable circumstances, to XII, total damage with waves seen on ground surfaces, lines of sight distorted, and objects thrown upward into the air.

The major source of potential earthquake damage to Moreno Valley is from activity along the San Jacinto Fault Zone which passes through the eastern portion of the study area. The San Jacinto Fault Zone is composed of several parallel faults that together constitute the zone. In the northern portion of the zone, the two main branches are the San Jacinto fault and the Casa Loma fault. Both of the faults are located within the study area.

The San Jacinto fault, located at the eastern periphery of the study area along the base of the Badlands range, is considered to be the most active<sup>3</sup> fault within Southern California. Another major fault, considered potentially active,<sup>4</sup> is the Casa Loma fault, located approximately 1.5 miles southwest of the San Jacinto fault. The exact location of the Casa Loma fault presents a problem because it is buried beneath alluvium within much of the study area. Shown in Figure 9, its approximate location is based on a southeastern linear connection of the Reche Canyon fault,

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<sup>3</sup>The term "active fault" refers to those faults that are known to have moved at the surface during Holocene time (about the last 11,000 years).

<sup>4</sup>The term "potentially active" refers to those faults considered to have been active during Quaternary time (the last 3,000,000 years).



exposed in the northern hills of the study area, with the northernmost extent of the Casa Loma fault trace located in the southeastern portion of the study area. Whether the Casa Loma fault is potentially active or inactive within the study area, has not been finally determined by geologists.

The most recent and severe earthquake that can be associated with the Casa Loma fault occurred during the 1918 San Jacinto earthquake (Richter magnitude 6.8). No expected interval between earthquakes on the Casa Loma fault has been established; however, the San Jacinto fault has been the source of numerous significant earthquakes during this century. The expected interval between major earthquakes on the San Jacinto fault zone is shown in Table III-A.

Table III-A

SAN JACINTO FAULT - SEISMIC PARAMETERS	
Magnitude	Recurrence Interval (years)
7.5	Maximum Credible
7.0	200-500
6.5	100-200
6.0	50-100

Source: Leighton & Associates; Envicon, Inc., 1976.



If a major earthquake were to occur along the San Jacinto fault zone where it passes through the study area, extensive damage could result, including the destruction of most masonry and frame structures, along with their foundations, as well as the destruction of some well-built wooden structures. Conspicuous ground cracking, bent rails, considerable landsliding from river beds and steep slopes, the shifting of mud and sand, and water splash could also be expected as the result of the occurrence of an earthquake of maximum credible magnitude.

Other regional faults of significance which could affect the study area in terms of ground shaking are the San Andreas and Elsinore faults. The San Andreas is an active fault, and is located approximately 15 miles northeast of the study area. Theoretically, an earthquake with a magnitude of 6.5 on the Richter Scale will occur at an average of once in 50 to 100 years. The Elsinore fault is considered potentially active, and is located approximately 17 miles southwest of the study area. However, the San Jacinto fault is considered the most significant for Moreno Valley in terms of potential for ground shaking.

Secondary seismic hazards (hazards which may be triggered by an earthquake) include liquefaction, land settlement, landslides, and seiches. Liquefaction is not considered to be a potential hazard within Moreno Valley since groundwater levels are predominantly below 100 feet. Land settlement, however, may be a problem in that subsurface soils are similar to those in the Perris Valley to the south, where significant settlement has been reported. Although no specific land settling problems have been identified within the Moreno Valley study area, soils engineers should be aware of this potential problem when conducting foundation investigations.

Landslides and slope instability are a relatively minor hazard within the area since it is generally underlain by granitic rock. The downslope movement of loose rock or boulders during strong ground shaking is the most likely slope hazard. The potential extent of this hazard would be limited to areas directly below the steep slopes of the mountainous areas within the study area. Presently,

the steep slopes of the Badlands have a relatively unstable soil composition in their natural state, and modifications of the landform in this region could result in some hazardous slope instabilities.

Seiching (water movement caused by ground shaking) may present a hazardous situation during an earthquake at Poorman Reservoir, Sunnymead Lake, and Lake Perris if the seiching and the ground shaking resulted in dam failure. Specific dam failure hazards are discussed in the Flood Hazards section of this document. Water storage tanks located within the study area are also susceptible to seiching. Thus, water tank rupture as well as dam failure could occur during an earthquake, which would endanger inhabitants and structures within the path of the resulting flow of water.

## 2. ISSUES AND OPPORTUNITIES

An analysis of anticipated seismic shaking throughout the County of Riverside is presented in the technical report prepared as part of the Riverside County Safety and Seismic Safety Elements. On the basis of fault distance and anticipated earthquake magnitude, the County is divided into five seismic intensity zones, I through V, based on distances from causative faults (Zone I signifying areas farthest from active faults).

As identified in Figure 9, the Moreno Valley study area is located within seismic zones III, IV, and V. The southwesterly portion of the study area is within Zone III, the center is located in Zone IV, and the northeasterly portion of the study area nearest the San Jacinto fault zone is located in Zone V. The study area was further divided into detailed seismic zones on the basis of the types of soils which are present.

Any determination regarding the suitability of various land uses, based upon seismic hazards, must be influenced by considerations for community safety and disaster recovery before and after the occurrence of an earthquake.

With this in mind, specific land uses as listed below have been identified as having critical or essential characteristics relative to expected seismic hazards and risks.

- a. The manufacturing, handling, or storage of hazardous or explosive materials.
- b. Hospitals and other emergency medical facilities.
- c. Police, fire, and communications systems.
- d. Emergency operations centers (EOC's).
- e. Ambulance services.
- f. Schools and other public assembly uses with occupancy capacities of 300 or more.
- g. Power plants.
- h. Utility substations.
- i. Dams.
- j. Sewage treatment plants.
- k. Waterworks.

In addition, and with respect to critical and essential components of the infrastructure, the lack of available alternatives for the location of such facilities as major highways, bridges, gas and electric distribution lines, electric power inter-tie systems and aqueducts, should also be considered in the evaluation of land use suitability.

Because the location of such facilities within the study area is an unavoidable necessity, and given the fact that their precise alignments and locations are relatively fixed as a function of required service areas and needs, their suitability based upon expected ground shaking is less important than the assurance that their structure design is adequate to withstand sufficient "G" force to remain functional in the event of a major earthquake occurrence.





## D. FLOOD HAZARDS

### 1. EXISTING SETTING

Regional flood control planning and facilities construction are within the jurisdiction of the Riverside County Flood Control and Water Conservation District (RCFCWCD). Following incorporation, RCFCWCD has remained under contract of the City of Moreno Valley for flood control planning and implementation. The City of Moreno Valley, however, has retained the responsibility for design, construction, and maintenance of local drainage facilities.

#### a. FLOODING

Much of the study area's population resides in low lying areas, and as a result, is subject to periodic flooding during and immediately after heavy rainfall. In addition, several portions of the study area are subject to a 100-year flood, caused by a storm of general intensity and duration that would be expected to have a one percent chance of occurrence in any given year, or a one in every one hundred year chance of occurrence. The combination of rapid development and insufficient drainage facilities has left numerous areas subject to extensive flooding conditions.

Four types of actual and potential flooding conditions exist within the Moreno Valley study area: flooding in defined watercourses, ponding, sheet flow, and dam inundation flooding. Flooding within defined watercourses varies along many of the shallow drainage ways and floodplains. Since flood zones in these areas have not been well defined, it becomes difficult to determine to what extent flood hazards exist along defined watercourses.

Ponding occurs when water flow is obstructed due to manmade obstacles. These obstructions include the embankments of State Route 60, Interstate 215, and other various roadways crossing defined watercourses. Sheet flows occur through

portions of the study area when capacities of existing channels are exceeded and water flow diverts from its originally defined flow path over a generally broad and undefined area.

Extensive flooding has occurred in the general vicinity of Alessandro Boulevard and Redlands Boulevard where there is a lack of defined water courses or drainage facilities. The Riverside County Seismic Safety and Safety Element indicates that moderate to significant levels of flooding are possible in a 100-year flood, particularly north of State Route 60 at the Sunnymead Channel, the general vicinity of Alessandro Boulevard and Redlands Boulevard, and the area south of John F. Kennedy Avenue and Perris Boulevard.

According to the Moreno Valley City Engineer, the City of Moreno Valley has, and will continue to experience mild to severe flooding conditions in isolated areas throughout much of the City. As illustrated in Figure 10, some flood hazard areas have been identified. However, current and thorough flood hazard mapping is not yet available, thereby leaving floodprone lands within the study area questionable.

Dam inundation is a potential, albeit remote, flood hazard through several portions of the study area. This condition is based on the assumption of instantaneous failure of a dam with the reservoir at or near its full capacity. Two locations of concern exist within the study area: Pigeon Pass Dam and Lake Perris Dam.

The inundation of Pigeon Pass Dam could result in severe downstream flood conditions along the existing watercourse. The development of Sunnymead Ranch Lake just north of the dam site, will increase the flood hazard potential in the area if dam inundation were to occur at that lake; however, a revised flood hazard study will be necessary to determine the extent and possibility of any such hazard. Inundation of Perris Lake Dam would only affect a very small portion of the study area, south of Nandina Avenue along the Perris Valley Storm Drain.

With respect to the history of floods within the study area, long-time hydrologic data regarding ponding, sheet flow, or flooding within defined water courses other than the San Jacinto River, were generally not available.

However, as the only historical perspective on flooding obtained, Table III-B is provided as it relates to the dates of occurrence and real discharge quantities of major flooding of the San Jacinto River within this century.

Although specific measurements reflect an area of the San Jacinto upstream of the study area, the data is provided herein as relevant to the study area as it may affect or otherwise be pertinent to the southwest portion of the study area, where the San Jacinto River passes through the wildlife refuge.

Table III-B

### SUMMARY OF MAJOR FLOODS OF SAN JACINTO RIVER\*

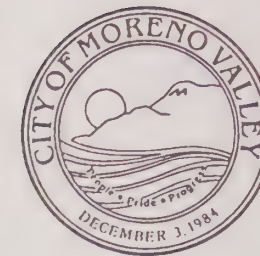
Date	Peak Discharge	
	Cubic metre/second	Cubic feet/second
Jan. 1916**	1,080	38,000
Feb. 1927	1,270	45,000
Aug. 1931	170	6,000
Feb. 1937	400	14,000
Mar. 1938	400	14,300
Nov. 1965	180	6,310
Dec. 1966	160	5,720
Jan. 1969	210	7,410
Feb. 1969	120	4,080

\*As measured at Highway 74 bridge.

\*\*Estimated.







# FLOOD HAZARDS

## LEGEND



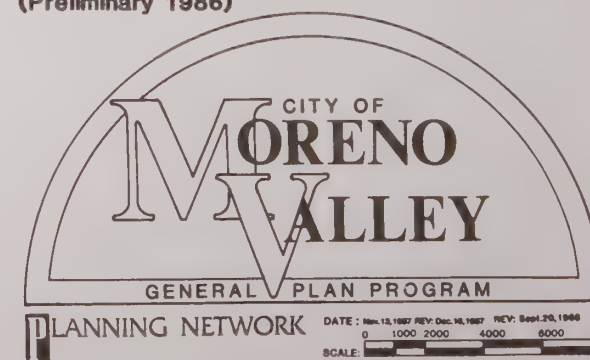
-  100 YEAR FLOOD HAZARD AREAS
-  DAM INUNDATION FLOWS



FIGURE 10

Note: This map does not necessarily show all areas subject to flooding.

Source: Riverside County Flood Control General Plan Maps, National Flood Insurance Rate Maps (Preliminary 1986)





## b. FLOOD CONTROL PLANNING AND DRAINAGE SYSTEMS

Prior to the City's incorporation, RCFCWCD had prepared three "Master Drainage Plans" for the communities of Moreno (1980), Sunnymead (1978), and Edgemont (1963). These documents analyzed existing drainage flows within portions of the study area at that time, and made recommendations for improvements (see Figure 11). However, improved hydrological methods, along with rapid development and land use and density changes, have resulted in portions of each master plan requiring some revision to insure the adequate drainage of floodwaters throughout the study area. Currently, 40 to 50 percent of the entire system remains to be installed.

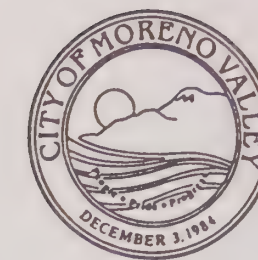
**The Moreno Area Drainage Plan** is generally bounded by Nason Street on the west and Theodore Street on the east. The Badlands range to the north and the Mount Russell area foothills to the south, define the northern and southern boundaries of the drainage area. The plan proposes two retention basins and a network of open channels and underground storm drains. The proposed system will carry storm runoff through the area to a proposed channel system located along the base of Mount Russell and adjacent foothills, eventually draining into the Perris Valley Storm Drain.

**The Sunnymead Area Drainage Plan** is generally bounded by Frederick Street and March Air Force Base on the west, the Perris Valley Storm Drain on the south, and Lassalle Street on the east. The plan consists of several retention basins, open channels and a network of underground storm drains. The proposed system will carry storm runoff south through the area to the Perris Valley Storm Drain.

**The Edgemont Master Plan for Flood Control and Drainage** is roughly bounded by the Box Springs Mountains to the north, Interstate 215 on the west, Alessandro Boulevard on the south, and Frederick Street on the east. The master plan calls for a system of open concrete lined channels and underground storm drains, which in conjunction with streets, will allow for the safe passage of storm flows through the developed area. The system discharges storm runoff through the existing culvert at Interstate 215 and into Sycamore Canyon.




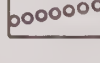




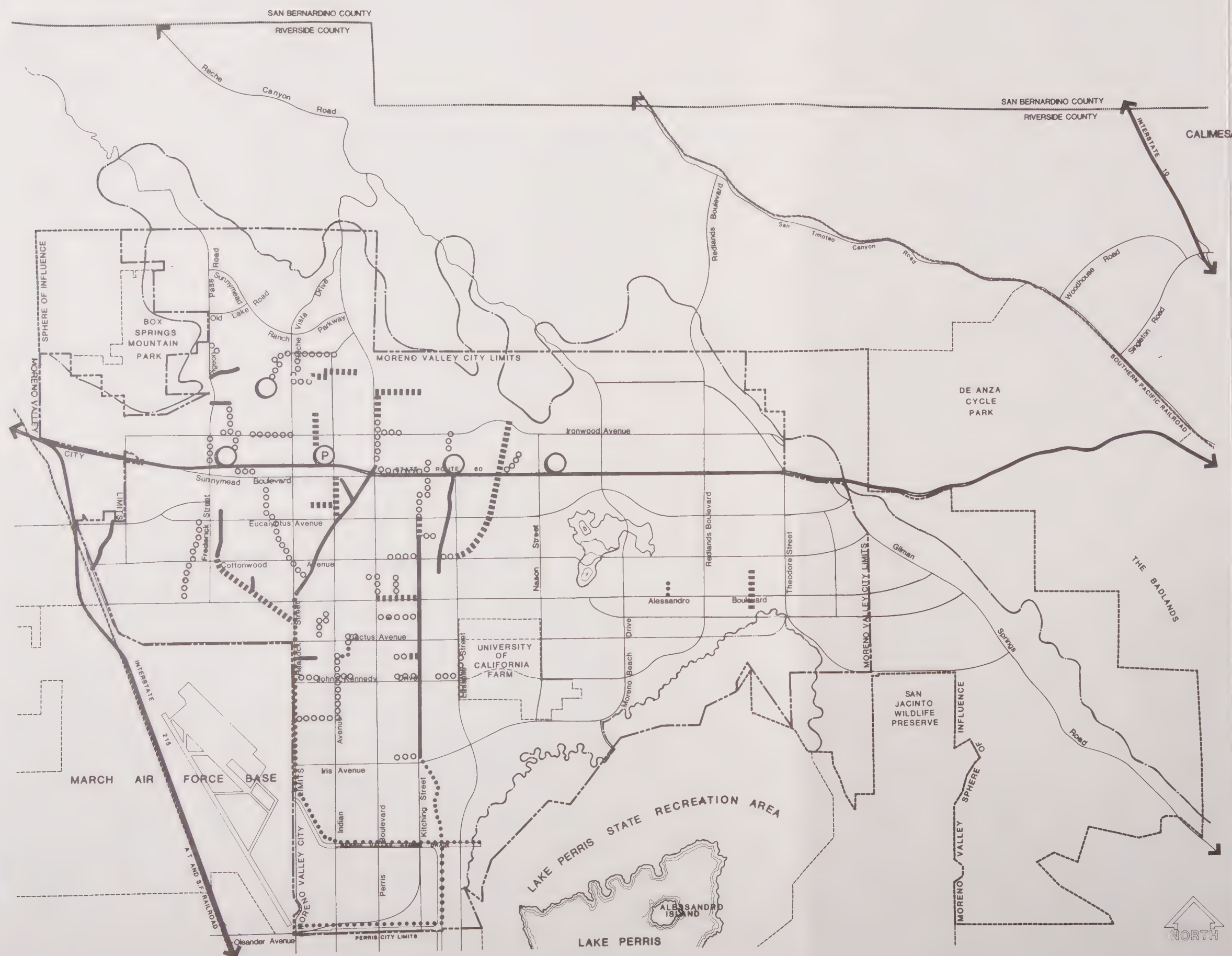




# FLOOD CONTROL FACILITIES

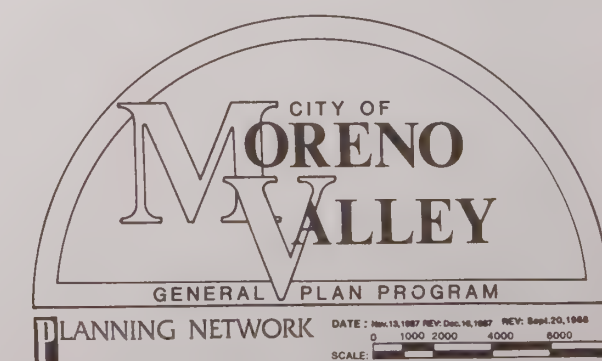
## LEGEND

-  EXISTING RETENTION BASIN
-  PROPOSED RETENTION BASIN
-  EXISTING OPEN CHANNEL
-  EXISTING UNDERGROUND PIPELINE
-  INTERIM OPEN CHANNEL
-  UNDERGROUND PIPELINE FUNDED 1986-1987



Source: Riverside County

FIGURE 11





The Perris Valley Storm Drain ultimately accepts all water flowing out of the Moreno Valley with the exception of runoff from the western portion of the Edgemont area and the eastern portion of the study area, east of Theodore Street.

Originating along the eastern side of March Air Force Base, the Perris Valley Storm Drain flows in a southerly direction through the Perris Valley and terminates in the San Jacinto River. The existing 100-year floodplain associated with this major storm drain has not been officially established, however, County flood control maps showing completion of the flood control facilities feeding the Perris Valley Storm Drain indicate marginal flood conditions along the Heacock Channel, expanding in width as it approaches the Perris Valley Storm Drain during a 100-year flood. Therefore, the necessary flood control facilities may be required prior to land development in the area.

Storm water runoff in the eastern portion of the study area generally flows in a southerly direction through existing natural floodways and manmade agricultural and roadside ditches. Runoff flows through the San Jacinto Valley and ultimately drains into the San Jacinto River.

Sycamore Canyon accepts storm runoff out of the Box Springs Mountains and the western portion of the Edgemont community. The canyon accepts the water flow at a large culvert passing under Interstate 215 and runs in a north-westerly direction toward the City of Riverside. There is no indication of flood hazard potential through the canyon; however, a 100-year floodway through the Interstate 215 culvert has the potential to back water up into the existing drainage ways and subsequently, flow over the highway.

Supplementing the two major systems are the Pigeon Pass Dam/Poorman Reservoir and several primary channels, including the Pigeon Pass Channel, the Sunnymead Storm Channel, the Sunnymead Storm Drain Channel, the Heacock Channel, and the Kitching Street Channel. A series of minor drainage facilities including curb and gutter, roadside ditches, and smaller channels and culverts also serve the flood control system.



The Pigeon Pass Dam/Poorman Reservoir, located north of the Sunnymead community, controls floodwater flow out of the Box Springs Mountains area, and into the Pigeon Pass Channel. The channel flows in a southwesterly direction, feeding into the Sunnymead Storm Drain Channel. The Sunnymead Channel originates at a drainage culvert passing under State Route 60, Perris Boulevard exit, accepting water runoff out of the adjacent foothills to the north and conveying flows southward to the Heacock Channel.

The Heacock Channel is an open, concrete-lined channel, running through a residential portion of the study area, eventually aligning with Heacock Street at Alessandro Boulevard. From this point, the channel becomes an unlined, earthen channel along Heacock Street until its termination at the Perris Valley Storm Drain.

The Kitching Channel is an open, mostly concrete-lined, channel running along the southern portion of Kitching Street until it turns in a southeast direction, becoming an earthen channel and draining into the Perris Valley Storm Drain.

Several additional flood control facilities have been constructed within the study area. A limited number of minor flood control retention basins have been constructed in the hills north of State Route 60. Such basins are designed to reduce the flow rates entering the existing flood control system. Development in the northern portions of the study area will require additional retention facilities as an alternative to rebuilding the downstream flood control system.

Various 24-inch drainpipes and large double box culverts are situated along State Route 60 to carry flows from the northern portion of the study area under the freeway, to the southern portion of the study area. Some drainpipes and culverts are also situated along Interstate 215, which carry flows from the northwestern portion of the study area to the west side of Interstate 215, including the Sycamore Canyon watershed.



Underground storm drains have also been placed under many other primary roadways, diverting surface flows off the streets and into the flood control channels.

Minor drainage facilities throughout the study area generally consist of agricultural and roadside ditches, and facilities occur in varying widths along the two major channels and many of the minor ditches.

## 2. ISSUES AND OPPORTUNITIES

### a. FLOOD CONTROL FACILITIES FUNDING

According to the RCFCWCD, improved methods to determine flood hazards, along with rapid development and land use and density changes, have resulted in portions of each of the existing master plans requiring some revision to insure the adequate drainage of floodwaters throughout the study area. Although a conservative approach to determining runoff was taken by the County in determining flood control needs, the pace and extent of development within Moreno Valley was not fully taken into account in earlier planning efforts, and thus, upgrading of some systems is necessary. In addition, the advent of major development plans including the Riverside International Raceway site, Moreno Valley Ranch, and the Hidden Springs development were not anticipated in early planning efforts, necessitating continual revision to area drainage plans.

As a result of establishing master drainage plans, RCFCWCD has been collecting development fees to finance drainage improvements. However, there has traditionally been a lapse between (1) the time development fees are collected and, (2) the time sufficient fees have been collected to allow for construction of a portion of the system. Thus, although master drainage plans are in place, and are being implemented, drainage problems remain, and can be expected to continue into the future until the entire drainage system has been completed. Although current main trunk facilities (primary open channels) were designed to protect

anticipated development in a 100-year flood and the combined collector line and surface street network feeding the study area's system was designed to accommodate 10-year flood flows, 40 to 50 percent of the system remains to be installed.

As development within Moreno Valley proceeds, land developers will continue contributing to system construction by not only installing the local drainage facilities on their property but also by paying a drainage fee to the RCFCWCD for the completion of the major flood control facilities in that drainage plan area. Revision and completion of the current drainage plans is underway to insure orderly development within the study area.

b. NATIONAL FLOOD INSURANCE PROGRAM

The Federal Government, alarmed by rising costs of disaster relief, passed the National Flood Insurance Rate Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts is to reduce the need for large public expenditures for flood control works and flood relief by identifying and restricting development within floodplains. Currently, Flood Insurance Rate Maps (FIRM) do not analyze the entire study area, however, according to the latest FIRM map revisions, and the Riverside County Comprehensive General Plan Mapping System and U.S. Geological Service maps of flood prone areas, several portions of the Moreno Valley study area are subject to moderate to severe flooding in a 100-year storm.

Although the current FIRM revisions for the study area are not official, the City of Moreno Valley has joined the National Flood Insurance Program. The City thereby qualifies for limited amounts of flood insurance. Revisions to the flood maps within the study area are currently underway.

According to the Riverside County General Plan Maps, other areas subject to the 100-year flood flows include, but are not limited to, the primary channels and swales draining into the two major watershed systems, and the roadside and agricultural ditches found throughout the study area. Approximately one half of the proposed flood control facilities specified in the Moreno Valley study area drainage plans have been constructed; however, revision of the plans may be necessary as land use changes and/or increased densities occur with future development. Updated FEMA (Federal Emergency Management Agency) flood mapping may reflect such changes and identify current flood hazards within the study area.





## E. NOISE

Noise has long been an accepted part of modern civilization and the urbanization process. The general background level of noise, however, seems to be rising as modern transportation systems develop and human dependence upon machines increases. As society becomes increasingly mobile and mechanization continues to increase, so does the need for a better understanding of the effects of noise exposure in the environment.

Noise has not received the degree of social attention and concern that has been given to air and water pollution, partially because noise cannot be seen (and its cumulative effects are still being studied), and partially because it is often a temporary noise event that causes annoyance. Interestingly, it is the noise of others that typically bothers us, not the noise we make ourselves. At any rate, not until recently have agencies and governments become vitally concerned about noise and its effects on the health and welfare of people.

The planning process has not traditionally been concerned with noise. In many instances, noise problems were identified only after the noise sources were allowed to establish in a community. It is now evident that these situations could have been avoided by considering noise generators and noise sensitive receptors as part of the comprehensive planning process.

Noise analyses can provide valuable input to the Circulation, Land Use, and Housing Elements of the General Plan. For example, extremely noisy areas which result from adjacent transportation systems and industrial land uses would not be suitable locations for noise sensitive residential uses. The Noise Element can recognize the need for both remedial measures for existing noise problems, and preventative actions to protect future development.

The Noise Element of the General Plan is a mandatory component pursuant to State law (California Planning and Zoning Law, Section 65302(g)). It must recognize the guidelines adopted by the State Office of Noise Control pursuant to

Section 46050.1 of the Health and Safety Code. It must also quantify the community noise environment in terms of CNEL or Ldn metrics for both near and long-term levels of growth and traffic activity (including a current and future community noise exposure inventory identifying the number of persons exposed to various noise levels within the community). This information is to become a guideline for use in the development of the land use element to achieve noise compatible land uses. It is also used to provide baseline noise levels and noise source identification for subsequent noise ordinance enforcement. Furthermore the Noise Element specifies how noise policies and standards are to be implemented through zoning and the noise ordinance.

Specifically the Noise Element should provide a systematic approach to: (1) the measurement and modeling of noise; (2) the establishment of noise standards; (3) the control of major noise sources; and (4) community planning for the regulation of noise. It is a guide to be used to identify and mitigate noise problems. The Noise Element establishes uniformity between city policy and programs undertaken to control and abate environmental noise. To protect citizens from excessive exposure to noise, the Noise Element must provide sufficient information to minimize noise impacts (and where possible eliminate noise pollution) throughout the community. In so doing, it fulfills its basic function: to protect the public health and welfare. Based upon the policy statements and standards put forth by the Noise Element, the noise ordinance provides an enforceable code to control or abate noise nuisances. A nuisance is any loud, unnecessary or unusual sound which disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitivities residing in an area. Compliance with recommended standards of the "Model Community Noise Control Ordinance" prepared by the California Department of Health, Office of Noise Control, constitutes noise emission levels which do not disturb reasonable people of normal sensitivity.

## 1. FUNDAMENTALS OF NOISE

Various noise rating schemes are introduced below, followed by a discussion of typical noise levels of familiar noise sources, noise attenuation with distance, and other basic considerations related to noise in the environment.

### a. NOISE RATING SCHEMES

Noise levels are measured on a logarithmic scale in decibels. The measurements are then weighted and added over a specified time period to reflect not only the magnitude of the sound, but also its duration, frequency, and time of occurrence. In this manner, various acoustical scales and units of measurement have been developed such as: equivalent sound levels (Leq), day-night average sound levels (Ldn), Community Noise Equivalent Levels (CNEL's), and Single Event Noise Exposure Levels (SENEL's).

A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against the very low and high frequencies of the audible spectrum. They are essentially adjusted to reflect only those frequencies audible to the human ear. The decibel scale has a value of 1.0 dBA at the threshold of hearing and 140 dBA at the threshold of pain. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. Therefore, a 1.0 decibel increase is just audible whereas a 10 decibel increase means the sound is perceived as being twice as loud as before.

Examples of the decibel level of various noise sources are shown in Figure 12. They include: the quiet rustle of leaves (10 dBA), a soft whisper (20 to 30 dBA), the hum of a small electric clock (40 dBA), ambient noise outdoors or in a house kitchen (50dBA), normal conversation at 5 feet (55 dBA), or a busy street at 50 feet (75 dBA).

Equivalent sound levels are not measured directly. They are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the Ldn and CNEL scales.

Day-night average sound levels are a measure of the cumulative noise exposure of the community. The Ldn value results from a summation of hourly Leq's over a 24-hour time period with an increased weighting factor applied to the nighttime period between 10:00 PM and 7:00 AM. This noise rating scheme takes into account those subjectively more annoying noise events which occur during the normal sleeping hours.

The stipulation of maximum Community Noise Equivalent Levels (CNEL's) can have a significant influence on the plannings of sensitive land uses in areas where high noise levels measured in decibels (dBA) exist or are expected. For example, as stipulated by this plan, the maximum recommended noise standard is 60 CNEL for single family residential land uses. If the ambient noise environment is typically 55 dBA during the daytime (7 am-7 pm), 50 dBA during the evening hours (7 pm-10 pm), and 45 dBA during the nighttime (10 pm-7 am), then the CNEL value would be 55.



# TYPICAL NOISE LEVELS OF FAMILIAR SOURCES

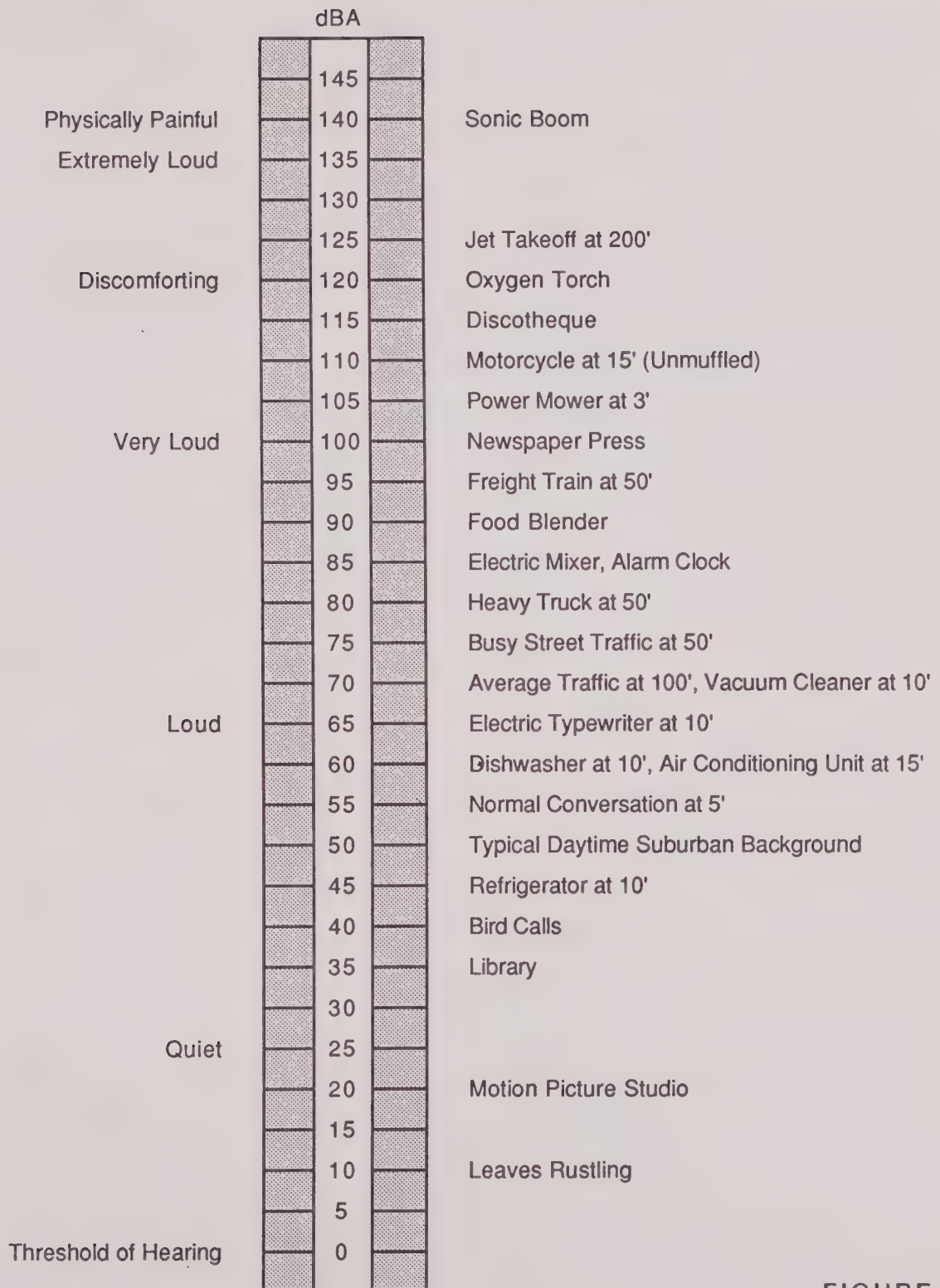


FIGURE 12



In this example, noise levels of 65 dBA for 6 hours during the day, 1-1/2 hours during the evening, or 1/2 hour during the night would also equate to 60 CNEL (the maximum acceptable noise level for this land use).

If a 75 dBA noise source, such as a busy street, has been added to the neighborhood, to maintain 60 CNEL the noise source could only operate for 1/2 hour during the day, 10 minutes during the evening, or 3 minutes during the night. If the noise source operates longer, barriers would have to be constructed to attenuate the noise down to 60 CNEL.

It can be seen from the preceding examples that the CNEL metric can effectively address loud noise sources by limiting the length of time of day that noisy operations are permitted to occur. It should be noted that if a 75 dBA noise source operates for 1/2 hour during the daytime, no other sources could create a noise level above the ambient 55 dBA. The amount of time a noise source can operate decreases during the evening and nighttime periods since weighting penalties are assessed during hours when noise is considered more intrusive.

Because of the weighting factors applied, CNEL values at a given location will always be larger than Ldn values, which in turn will exceed Leq values. Experience with many noise sources throughout Riverside County has shown that these two indices consistently agree within 1.0 dBA. Consequently, CNEL and Ldn values are used interchangeably in many County publications.

The Single Event Noise Exposure Level (SENEL) is the most appropriate noise level duration rating scale for a single noise occurrence. The SENEL, given in decibels, is the noise exposure level of a single event measured over the time interval between the initial and final times for which it exceeds the threshold noise level.<sup>5</sup>

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<sup>5</sup>Source: Title 21 California Administrative Code, Airport Noise Regulation; Section 5006.

#### b. NOISE ATTENUATION WITH DISTANCE

For a "line source" of noise such as a heavily traveled roadway, the noise level drops off by a nominal value of 3.0 decibels for each doubling of distance between the noise source and noise receiver. Environmental factors such as the wind direction and speed, temperature gradients, the characteristics of the ground (hard or soft) and the air (relative humidity), the presence of grass, shrubbery, and trees, combine to increase the actual attenuation achieved outside laboratory conditions to 4.5 decibels per doubling of distance. Thus, a noise level of 74.5 decibels at 50 feet from the highway centerline would attenuate to 70.0 decibels at 100 feet, 65.5 decibels at 200 feet, and so forth.

In an area which is relatively flat and free of barriers, the sound level resulting from a single "point source" of noise drops by 6 decibels for each doubling of distance or 20 decibels for each factor of ten in distance. This applies to fixed noise sources and mobile noise sources which are temporarily stationary such as an idling truck or other heavy duty equipment operating within a confined area (such as industrial processes).

#### c. OTHER CONSIDERATIONS

The noise levels adjacent to line sources of noise such as roadways increase by 3.0 dBA with each doubling in the traffic volume (provided that the speed and truck mix do not change). From the mathematical expression relating increases in the number of noise sources (motor vehicles to the increase in the adjacent noise level), it can be shown that a 26 percent increase in the traffic volume will cause a 1.0 dBA increase in adjacent noise levels. Doubling the number of vehicles on a given route increases the adjacent noise levels by 3.0 dBA, but changing the vehicle speed has an even more dramatic effect.

Increasing the vehicle speed from 35 to 45 mph raises the adjacent noise levels approximately 2.7 dBA. Raising the speeds from 45 to 50 mph



increases adjacent noise levels by 1.0 dBA. A speed increase from 50 mph to 55 mph increases adjacent noise levels by 0.9 CNEL. Consequently, lowering motor vehicle speeds can have a significant positive impact in terms of reducing adjacent noise levels.

The truck mix on a given roadway also has a significant effect on the adjacent noise levels. As the number of trucks increases and becomes a larger percentage of the total vehicle volume, the adjacent noise levels increase. This effect is more pronounced if the number of heavy duty (3+ axle) trucks is large when compared to the number of medium duty (2 axle) trucks.

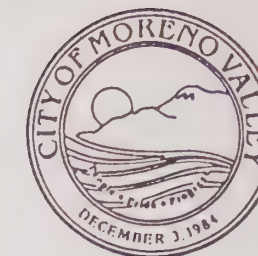
Noise levels adjacent to roadways vary with the volume of traffic, the mean vehicular speed, the truck mix, and the road cross-section. Figure 13 provides a nomograph for each roadway type which allows the CNEL at either 50 or 100 feet to be determined from the daily two-way traffic volume and the speed of the vehicles.<sup>6</sup> For example, an urban arterial road way carrying 10,000 ADT with a posted speed limit of 50 mph would generate approximately 63.7 CNEL at 100 feet. Lowering the speed to 45 mph reduces the CNEL at 100 feet to 62.5 dBA. Similarly, at a speed of 40 mph, the CNEL at 100 feet would be 61.3 dBA.

Figure 14 illustrates the effects of the truck mix on adjacent noise levels. As shown therein, an arterial street carrying 10,000 ADT at 40 mph would generate 60.9 CNEL at 100 feet if the truck mix were 10 percent of the ADT. A 5 percent truck mix would result in 62.2 CNEL at 100 feet.

The information presented below generally quantifies ultimate noise levels adjacent to master planned highways. Figure 15 can be used as a general guide for planning purposes to determine potential "worst case" future noise levels and the setbacks needed to insure an acceptable noise environment for planned land uses.

<sup>6</sup>Figures 13 and 14 assume a truck mix of 2.58%.





## TYPICAL NOISE LEVELS VERSUS SPEED AND VOLUME

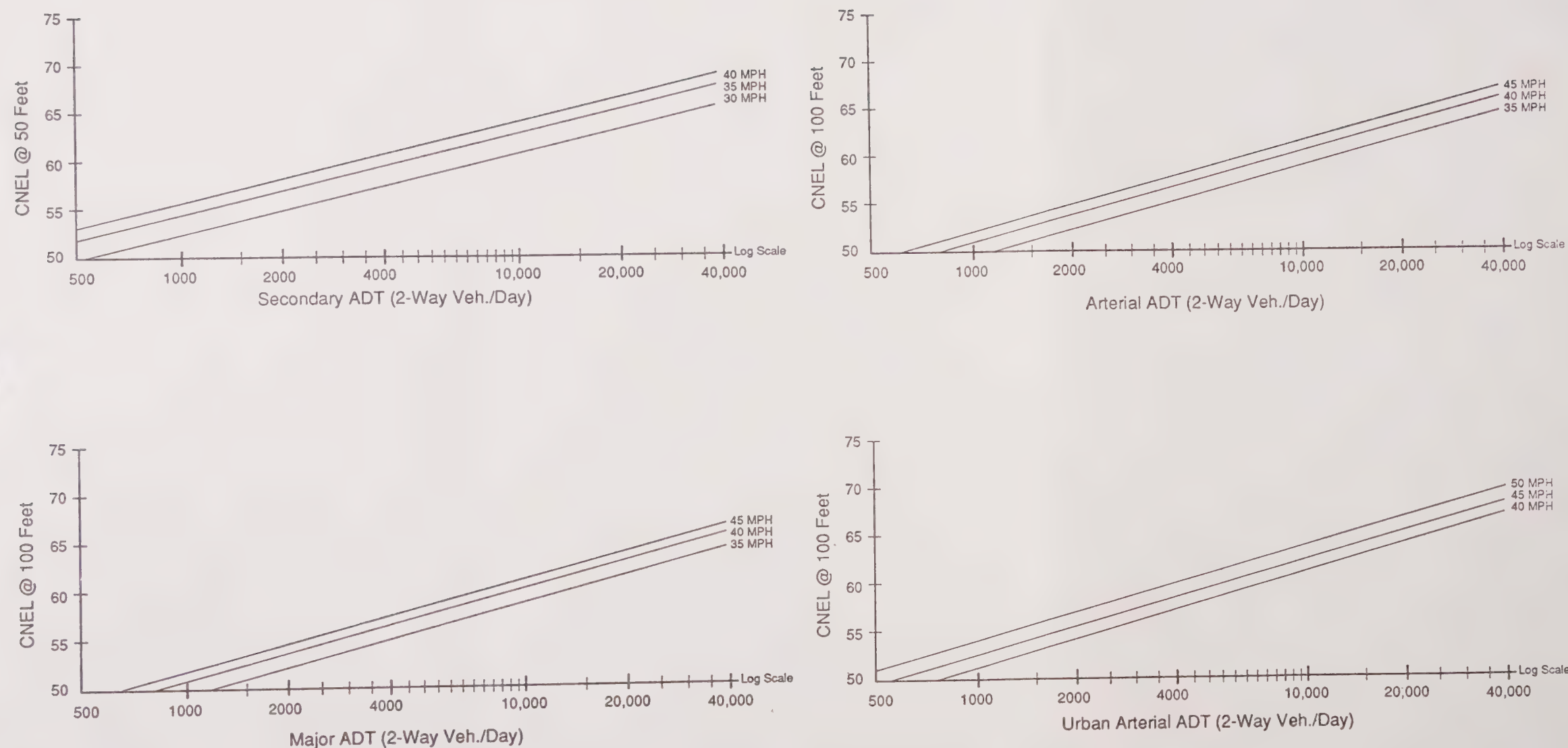
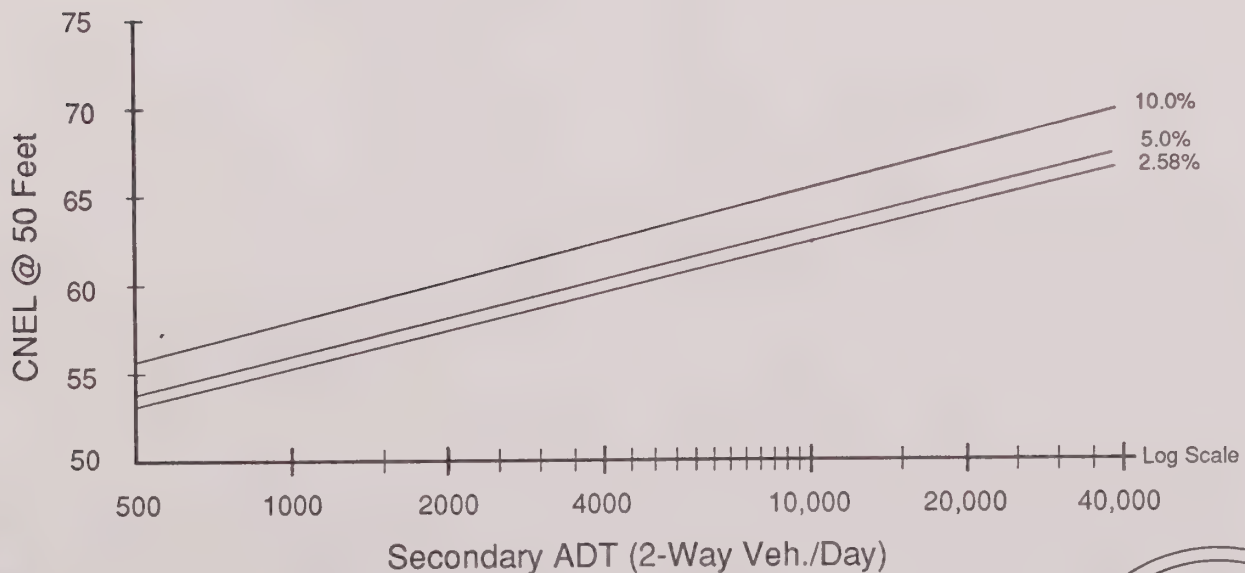
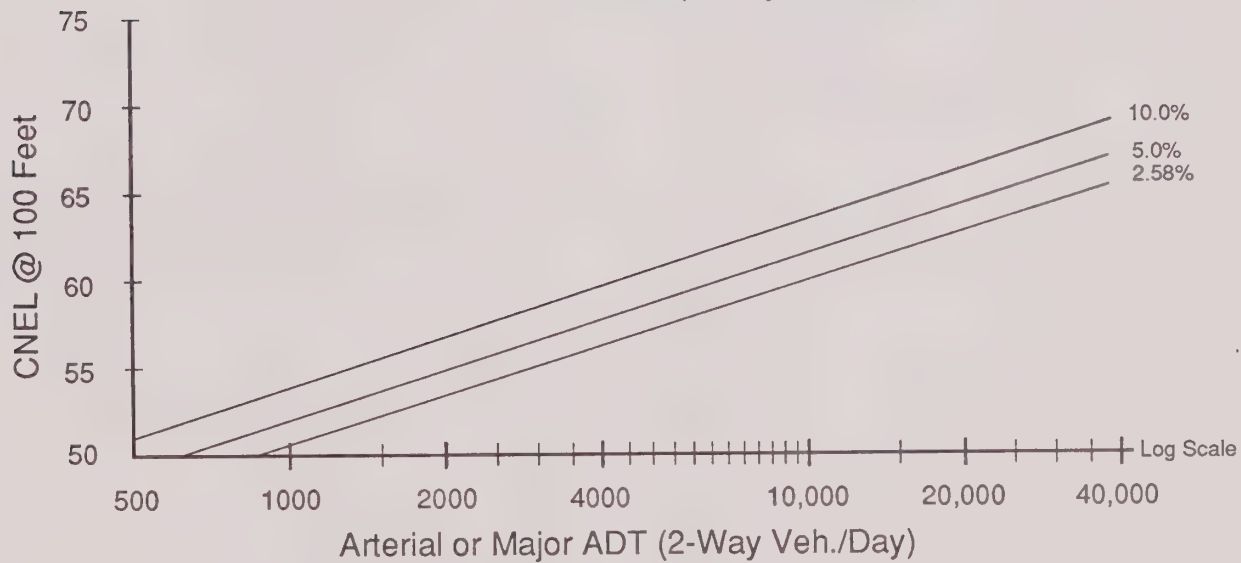
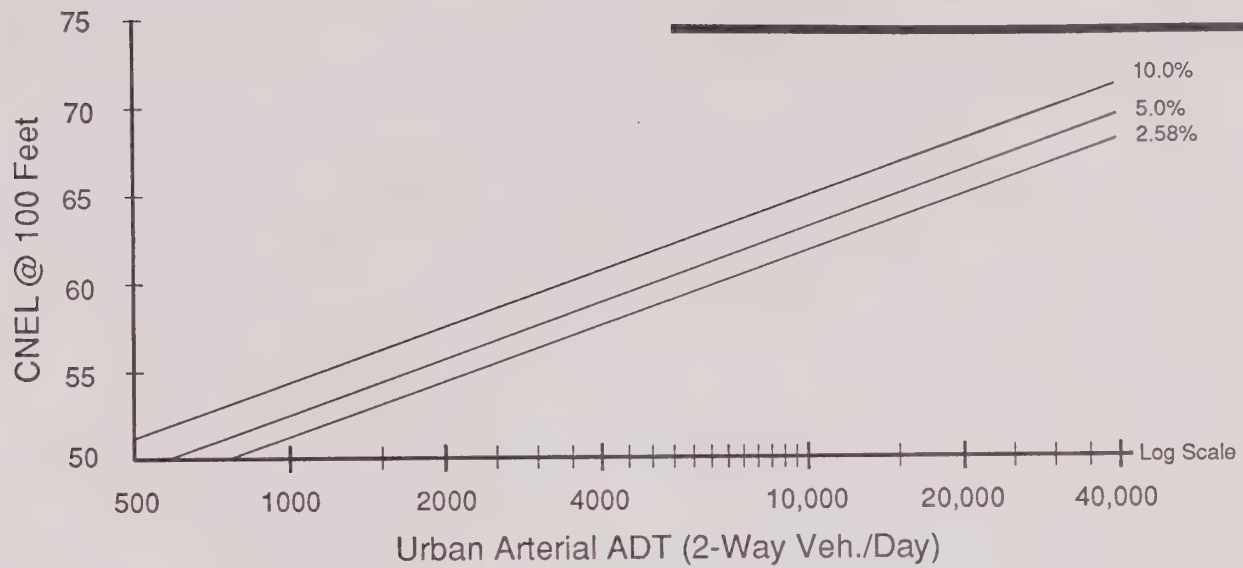


FIGURE 13





# EFFECTS OF TRUCK MIX ON CNEL AT 40 MPH





# DESIGN NOISE LEVELS

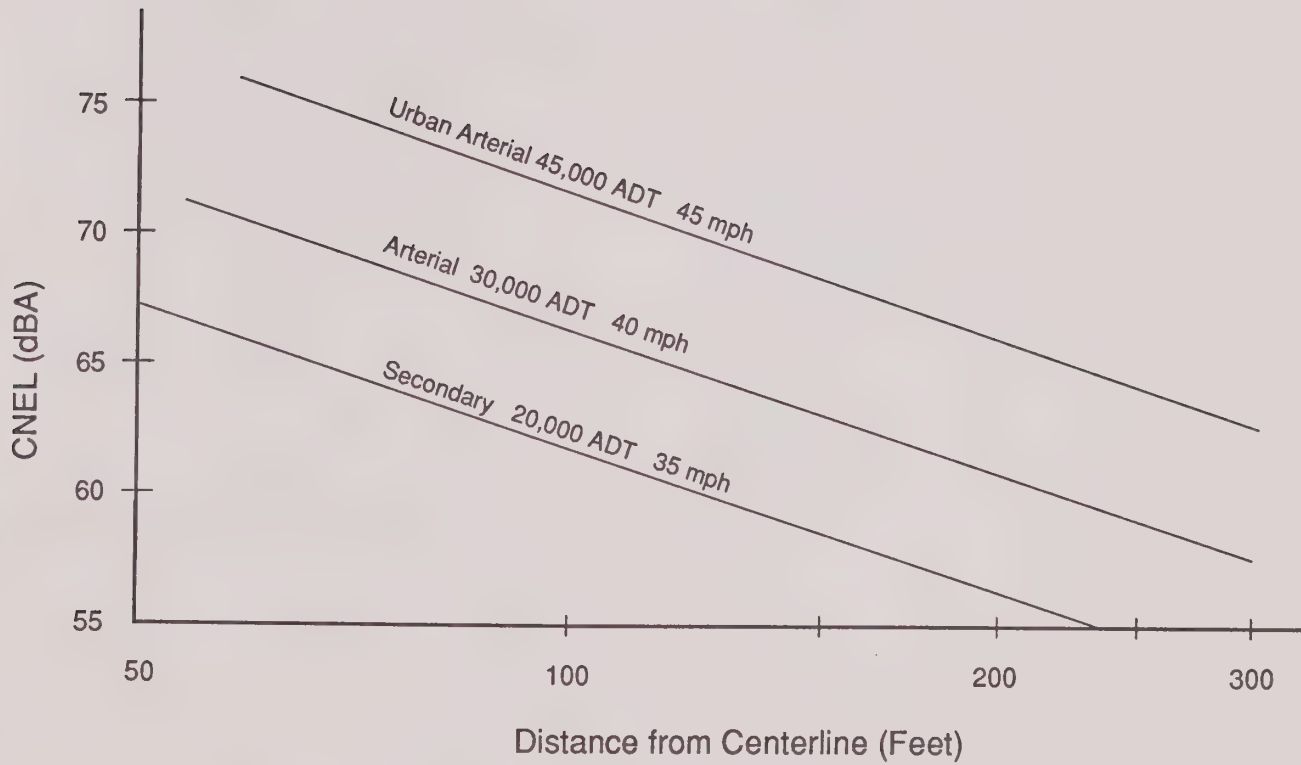


FIGURE 15





Figure 15 provides design noise levels adjacent to a typical arterial, major and secondary roadway. The nomograph assumes an ultimate daily design capacity for each roadway type as well as a typical design speed and a 2.58 percent truck mix. Figure 15 can be used to determine the CNEL contours between 50 and 300 feet from the roadway centerlines.

## 2. HUMAN REACTIONS TO SOUND

Approximately 20 million people in the United States currently have some degree of hearing loss. In many of these cases, exposures to very loud, impulsive or sustained noise caused damage to the inner ear which was substantial even before a hearing loss was actually noticed. To prevent the spread of hearing loss, a desirable goal would be to minimize the number of noise sources which expose people to sound levels above 70 decibels. Hearing impairment is only one of the harmful effects of noise on people.

### a. PHYSICAL AND PSYCHOLOGICAL RESPONSES

Noise can also cause other temporary physical and psychological responses in humans. Temporary physical reactions to passing noises range from a startle reflex to constriction in peripheral blood vessels, the secretion of saliva and gastric juices, and changes in heart rate, breathing patterns, the chemical composition of the blood and urine, the dilation of the pupils of the eye, visual acuity and equilibrium. The chronic recurrence of these physical reactions has been shown to aggravate headaches, fatigue, digestive disorders, heart disease, circulatory and equilibrium disorders. Moreover, as a source of stress, noise is a contributory factor in stress-related ailments such as ulcers, high blood pressure and anxiety.

Two harmful effects of noise which are commonly of concern involve speech interference and the prevention or interruption of sleep. Figure 16 illustrates how excessive background noise can

reduce the amount and quality of verbal exchange and thereby impact education, family lifestyles, occupational efficiency and the quality of recreation and leisure time.

As shown therein, speech interference begins to occur at about 40-45 decibels and becomes severe at about 60 decibels. Background noise levels affect performance and the learning process through distraction, reduced accuracy, increased fatigue, annoyance and irritability, and the inability to concentrate (particularly when complex tasks are involved or in schools where younger children exhibit imprecise speech patterns and short concentration spans).

Several factors determine whether or not a particular noise event will interfere with or prevent sleep. These factors include the noise level and characteristics, the stage of sleep, the individual's age, motivation to waken, and so forth. Ill or elderly people are particularly susceptible to noise-induced sleep interference, which can occur when intruding noise levels exceed the typical 35-45 decibel background noise level in bedrooms. Sleep prevention can occur when intruding noise levels exceed 50 dBA. Table III-C summarizes the harmful effects of noise discussed above.



# SPEECH COMMUNICATION AS A FUNCTION OF BACKGROUND NOISE LEVEL

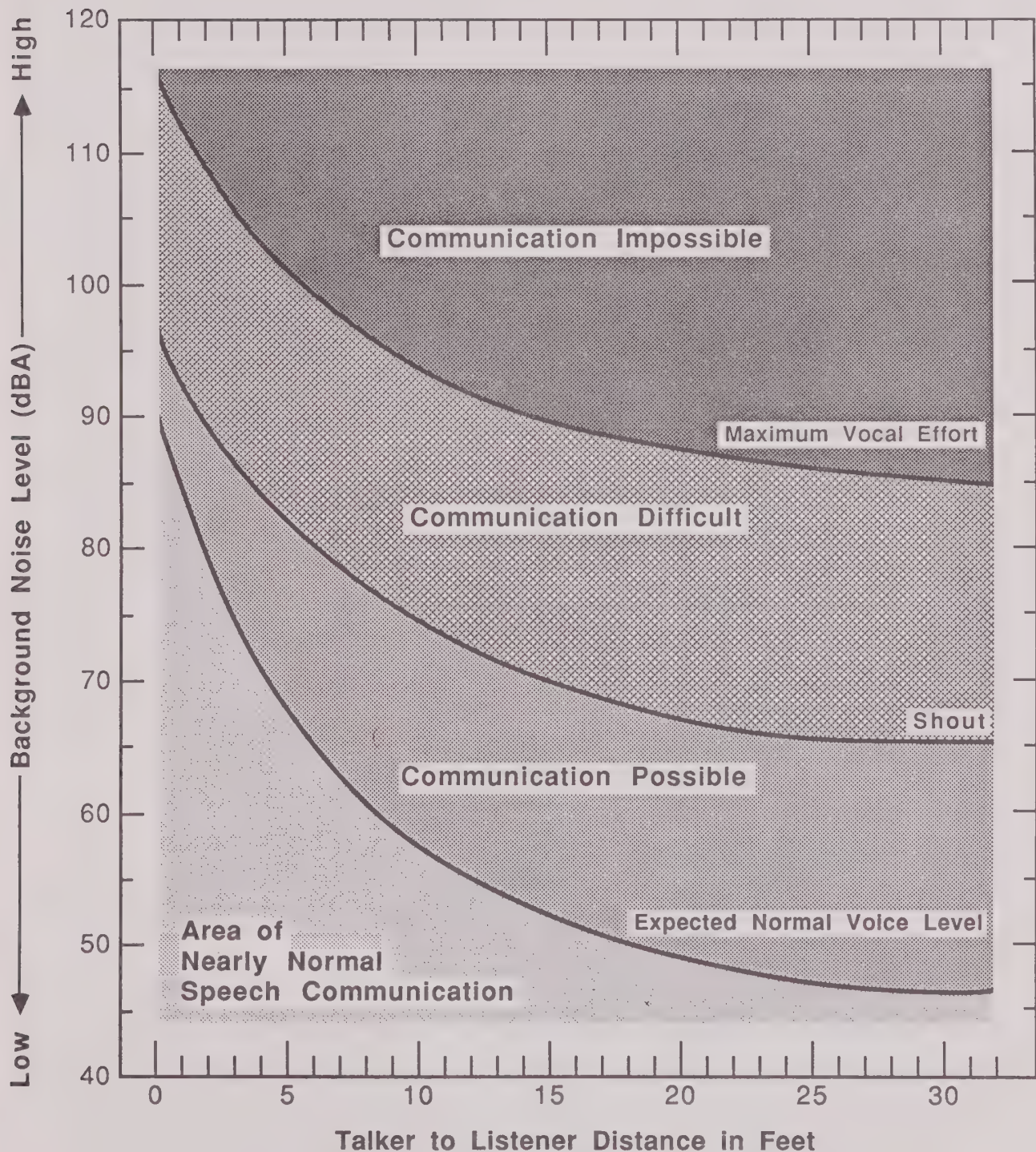


FIGURE 16

Source: Miller, "Effects of Noise on People",  
Journal of Acoustical Society of America, V.56, No.3, 9/74





Table III-C

## HARMFUL EFFECTS OF NOISE

Effect	Noise Levels At Which Harmful Effects Occur
Prevention Or Interruption of Sleep	35 - 45 dBA
Speech Interference	50 - 60 dBA
Extra Auditory Physiological Effects	65 - 75 dBA
Hearing Loss	75 - 85 dBA

Source: California Department of Public Health Report to 1971 Legislature.

## b. COMMUNITY RESPONSE TO NOISE

Approximately 10 percent of the population has such a low tolerance for noise that they object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25 percent of the population will not complain even in very severe noise environments.<sup>7</sup> Thus, a variety of reactions can be expected from people exposed to any given noise environment. Despite this, the population as a whole can be expected to exhibit the following responses to changes in noise levels: an increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments; a 3.0 dBA increase is considered just noticeable outside of the laboratory; an increase of 5.0 dBA is often necessary before any noticeable change in community response (i.e. complaints) would be expected.<sup>8</sup>

<sup>7</sup>"Literature Survey for the FHA Contract on Urban Noise", Report No. 1460, BB&N, January 1967.

<sup>8</sup>"Noise Manual"; Caltrans, 1980 and "National Cooperative Highway Research program Report 117", HRB, 1971.

Table III-D details the effects of noise on individuals living in various noise environments and predicts the average community reaction to various sound levels in a residential setting. As shown therein, hearing loss may begin to occur at 75+Ldn and the noise environment will be highly annoying to 37% of the population. Residents who live in noise environments of 70 Ldn are not likely to experience hearing loss; however, 25% will be highly annoyed and noise will be viewed as one of the most important adverse aspects of the community environment. At 65 Ldn, hearing loss will not occur and 15% of the population will be highly annoyed by the noise environment.

Table III-E indicates the community reaction to noise as quantified from studies of complaints by individuals living around airports. As shown in Table III-D even at very low noise exposures, up to 13 percent of the population will display a high degree of annoyance even though no complaints will be registered. At the other end of the spectrum, even in communities exposed to noise levels between 75 and 80 Ldn, only 15-20 percent of the population will register a complaint despite the fact that more than half are highly annoyed by the noise environment.

and 80 Ldn, only 15-20 percent of the population will register a complaint despite the fact that more than half are highly annoyed by the noise environment.

Table III-D

PERCENTAGE OF PERSONS HIGHLY ANNOYED  
WHO REGISTER COMPLAINTS  
AS A FUNCTION OF Ldn

Noise Level Ldn (dBA)	Percentage of Highly Annoyed	Percentage of Complaints
50	13	Less Than 1
55	17	1
60	23	2
65	33	5
70	44	10
75	54	15
80	62	Over 20

Source: USEPA, "Public Health and Welfare Criteria for Noise", July 27, 1973.

Community responses to noise may range from registering a complaint by telephone or letter to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance.<sup>9</sup> These include:

- fear associated with the aircraft activities (fear of a plane crash);
- socioeconomic status and educational level of the residents;
- resident's belief that they are being treated fairly;
- attitudes regarding the usefulness of the flights; and
- resident's belief that the noise source could be controlled.

<sup>9</sup>U.S. EPA, "Public Health and Welfare Criteria for Noise", July 1973.

TABLE III-E

# EFFECTS OF NOISE ON PEOPLE

(Residential Land Uses Only)

Effects <sup>1</sup>  Day-Night Average Sound Level in Decibels	Hearing Loss	Speech Interference		Annoyance <sup>2</sup>	Average Community Reaction <sup>4</sup>	• General Community Attitude Towards Area
		Indoor	Outdoor			
	Qualitative Description	% Sentence Intelligi- bility	Distance in Meters for 95% Sentence Intelligibility	% of Population Highly Annoyed <sup>3</sup>		
75 and above	May Begin to Occur	98%	0.5	37%	Very Severe	Noise is likely to be the most important of all adverse aspects of the community environment.
70	Will Not Likely Occur	99%	0.9	25%	Severe	Noise is one of the most important adverse aspects of the community environment.
65	Will Not Occur	100%	1.5	15%	Significant	Noise is one of the important adverse aspects of the community environment.
60	Will Not Occur	100%	2.0	9%	Moderate	Noise may be considered an adverse aspect of the community environment.
55 and below	Will Not Occur	100%	3.5	4%	to  Slight	Noise considered no more important than various other environmental factors.

1. "Speech Interference" data are drawn from the following tables in EPA's "Levels Document": Table 3, Fig. D-1, Fig. D-2, Fig. D-3. All other data from National Academy of Science 1977 report "Guidelines for Preparing Environmental Impact Statements on Noise, Report of Working Group 69 on Evaluation of Environmental Impact of Noise."

2. Depends on attitudes and other factors.

3. The percentages of people reporting annoyance to lesser extents are higher in each case. An unknown small percentage of people will report being "highly annoyed" even in the quietest surroundings. One reason is the difficulty all people have in integrating annoyance over a very long time.

4. Attitudes or other non-acoustic factors can modify this. Noise at low levels can still be an important problem, particularly when it intrudes into a quiet environment.

NOTE: Research implicates noise as a factor producing stress-related health effects such as heart disease, high-blood pressure and stroke, ulcers and other digestive disorders. The relationships between noise and these effects, however, have not as yet been quantified.

Source: U.S.D.O.T. "Guidelines for Considering Noise in Land Use Planning and Control", 1980



Recent studies have shown that changes in long-term noise levels, measured in units of Ldn or CNEL, are noticeable and that people respond. About 10 percent of the people exposed to traffic noise of 60 Ldn will report being highly annoyed with the noise, and each increase of one Ldn is associated with approximately 2 percent more people being highly annoyed. When traffic noise exceeds 60 Ldn or aircraft noise exceeds 55 Ldn, people begin complaining. Group and legal actions to stop the noise should be expected to begin at traffic noise levels near 70 Ldn and aircraft noise levels near 65 Ldn.<sup>10</sup>

### 3. LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than commercial or industrial activities. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design of new development. The mismanagement of noise impacts can also impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work.

#### a. FEDERAL GUIDELINES AND STANDARDS

The Federal Highway Administration (FHWA) has developed a series of maximum design noise levels for various activity categories which are expressed in terms of equivalent sound levels (Leq) and L<sub>10</sub> values.<sup>11</sup> These design noise levels are commonly used on federally funded road projects or projects for which federal review or Caltrans review is anticipated.

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<sup>10</sup>State of California, Department of Health Services, Dr. Jerome Lucas, July 11, 1984.

<sup>11</sup>L<sub>10</sub> values are noise levels exceeded ten percent of the time. They are commonly used to express peak hour noise levels (since peak hour traffic volumes are typically 10 percent of the daily traffic volume). Leq values are typically 3 dBA lower than L<sub>10</sub> values for the same time period.

The FHWA design noise levels represent maximum values and incorporate tradeoffs between desirable and feasible noise levels (recognizing that in many cases lower noise exposures would result in even greater community benefits). The design levels appear in Table III-F and are to be applied to:

- those undeveloped lands for which development is planned, designed and programmed on the date of public knowledge of the highway or other federally funded construction project,
- those activities and land uses in existence on the date of public knowledge of the project,
- those areas which have regular human use and in which a lowered noise level would be of benefit.

The FHWA noise abatement criteria establish an exterior noise goal for residential areas of 67 Leq and an interior goal of 52 Leq. These criteria apply to private yard areas and assume that typical wood frame homes provide 10 dB (outdoor to indoor) noise reduction with windows open and a 20 dB reduction with windows closed. Windows are assumed to be open unless there is firm knowledge that they are in fact kept closed almost every day of the year (i.e. non-openable windows).

Figure 17 and Table III-G indicate HUD policies used to determine eligibility for financial backing for new or rehabilitative residential construction in noise impacted areas. If the noise environment is determined to be normally unacceptable using Table III-G, financial assistance from HUD would still be possible if noise insulation provides adequate exterior to interior noise reduction. Measures that reduce the external noise at a site are preferred, when feasible, over measures which only provide attenuation for interior spaces. HUD generally prohibits construction of new noise sensitive land uses in areas with day/night noise levels that exceed 75 dBA.

Table III-F

## DESIGN NOISE LEVEL/ACTIVITY RELATIONSHIP

Activity Category	Design Noise Levels <sup>2</sup>		Description of Activity Category
	Leq(h)	L <sub>10</sub> (h)	
A	57 dBA (exterior)	60 dBA	Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular (public or private) parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 dBA (exterior)	70 dBA	Public areas, recreation areas, playgrounds, active sports areas, and public or private parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries and hospitals.
C	72 dBA (exterior)	75 dBA	Developed lands, properties or activities not included in Categories A or B above.
D	---	---	Undeveloped lands; for requirements of undeveloped lands see paragraphs 11a and c in FHPM 7-7-3. Noise abatement is not required unless development is imminent and noise abatement as part of the highway project is warranted by the difficulty and increased cost of incorporating abatement measures later.
E	52 dBA (interior)	55 dBA	Residences, motels, hotels, schools, churches, public meeting rooms, libraries, hospitals, and auditoriums.

<sup>1</sup> Refer to Federal Highway Administration's Program Manual FHPM 7-7-3 for details.

<sup>2</sup> Either L<sub>10</sub> or Leq (but not both) design noise levels may be used on a project.





# FEDERAL EXTERIOR NOISE ACCEPTABILITY CRITERIA FOR HOUSING

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Degree of Acceptability	Exterior Noise Exposure Ldn (dB)					
	55	60	65	70	75	80
Acceptable						
Normally Unacceptable						
Unacceptable						

## Interpretation

### Acceptable

The noise exposure may be of some concern but common building construction will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.

### Normally Unacceptable

The noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building constructions may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.

### Unacceptable

The noise exposure at the site is so severe that the construction cost to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.

FIGURE 17

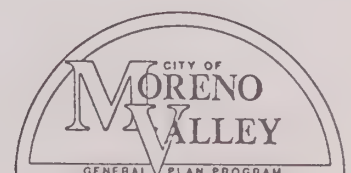




TABLE III-G

### HUD EXTERNAL NOISE EXPOSURE STANDARDS FOR NEW AND REHABILITATED RESIDENTIAL CONSTRUCTION

HUD Approval	Site Noise Exposure	Noise Level (Ldn)	Special Approval/ Requirements
Standard	Acceptable	Not exceeding 65 dB	None
Discouraged	Normally Acceptable	65 dB to 75 dB	Building sound attenuation of 5 dB for 65-70 dB noise level and 10 dB for 70-75 dB noise level  Special Environmental Clearance  Approval of Regional Administration
Prohibited	Unacceptable	75+ dB	Approval of Assistant Secretary of Community Planning  EIS required

Source: Federal Register v.44 n.135, Thursday July 12, 1979.<sup>1</sup>

<sup>1</sup>Subsequent to original publication it has been learned that a later Federal Register listing deleted HUD noise exposure standards for residential rehabilitation.

The EPA has identified the relationship between noise levels and human response as shown in Table III-H. Over a 24-hour period, an Leq (daily equivalent sound level) of 70 dB will result in some hearing loss. Interference with activity and annoyance will not occur if outdoor levels are maintained at an energy equivalent of 55 dB and indoor levels are at or below 45 dB. While these levels are relevant for planning and design, they are not land use planning criteria because they do not consider economic cost, technical feasibility or the development needs of the community. The EPA noise levels are guidelines for informational purposes.

Table III-H

## NOISE LEVELS AND HUMAN RESPONSE

Effect	Level	Area
Hearing Loss	Leq (24) $\leq$ 70 dB	All Areas
Outdoor Activity Interference and Annoyance	Ldn $\leq$ 55 dB	Outdoors in residential areas where people spend time
	Leq (24) $\leq$ 55 dB	Outdoor areas where people spend a limited amount of time
Indoor Activity Interference and Annoyance	Ldn $\leq$ 45 dB	Indoor residential
	Leq (24) $\leq$ 45 dB	Other indoor areas with human activities (e.g. schools)

Source: EPA, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety", March 1974. Leq (24) represents the sound energy averaged over a 24-hour period while Ldn represents the Leq with a 10 dB nighttime weighting. "Areas" refers to residential, industrial, commercial, and recreational areas, unless otherwise specified.



## b. STATE GUIDELINES AND STANDARDS

The State Aeronautics Act specifies 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exterior exposures to aircraft noise. The exterior maximum of 65 CNEL is given as the level deemed acceptable to a reasonable person residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech interference, sleep interference and community reaction.

Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4, of the California Administrative Code includes noise insulation standards which detail specific requirements for new multi-family structures (hotels, motels, apartments, condominiums, and other attached dwellings) located within the 60 CNEL contour adjacent to roads, railroads, rapid transit lines, airports or industrial areas.<sup>12</sup> An acoustic analysis is required showing that these multi-family units have been designed to limit interior noise levels with doors and windows closed to 45 CNEL in any habitable room. Title 21 of the California Administration Code (Subchapter 6, Article 2, Section 5014) also specifies that multinoise levels in all habitable rooms do not exceed 45 CNEL.

Section 65302 (g) of the Government Code specifies that it is the responsibility of the local agency preparing the General Plan to specify the manner in which the noise element will be integrated into the zoning plan and tied to the Land Use Element, Circulation Element, and the local noise ordinance. The Noise Element, once adopted, also becomes the guideline for determining compliance with the State noise insulation standards discussed above. The Office of Noise Control, established by the California Noise Control Act of 1973, has developed criteria and guidelines for local agencies for use in setting standards for human exposure to noise and preparing noise elements. These guidelines are summarized in Figure 18.

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<sup>12</sup>An exception is made for railroads where there are no nighttime (10pm to 7am) operations and where daytime (7am to 10pm) operations do not exceed four per day.

Each locality, in developing its Noise Element, must make a determination regarding how much noise is too much. A community's sensitivity to noise may be taken into account by starting with the general guidelines in Figure 18 and then applying the adjustment factors shown in Table III-I which allow acceptability standards to be set which (1) reflect the desires of the community and its assessment of the relative importance of noise pollution, and (2) are below the known levels of health impairment.

#### C. LOCAL POLICIES AND STANDARDS

As part of its Comprehensive General Plan Environmental Hazards and Resources Element, Riverside County established standards and policies regarding land use compatibility with noise, which became part of the Moreno Valley General Plan upon incorporation. Review procedures and diagrams for use in identifying noise hazards on a site specific basis were also developed.

Figure 19 is a "Land Use Compatibility Chart for Community Noise" which has been reproduced from the Comprehensive General Plan. It diagrammatically identifies normally acceptable, conditionally acceptable, and generally unacceptable noise levels for various land use types (including noise levels where various land uses are discouraged). As shown therein, residential uses, schools, office buildings, and professional service and business establishments are conditionally acceptable in exterior noise environments up to 70 CNEL (dBA). Recreational uses such as golf courses and lakes where motorized boats and jet skis are prohibited are more sensitive to noise and are conditionally acceptable in exterior environments up to 65 CNEL. Commercial land uses, including retail uses and restaurants, are conditionally acceptable in exterior noise levels up to 75 CNEL. Industrial and manufacturing land uses, being less sensitive to noise, are normally acceptable where the exterior noise levels are 75 CNEL or less.

# LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT

## CALIFORNIA STATE GUIDELINES

### INTERPRETATION

#### Normally Acceptable

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

#### Conditionally Acceptable

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.

#### Normally Unacceptable

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

#### Clearly Unacceptable

New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE Ldn or CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL — LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES						
RESIDENTIAL — MULTIPLE FAMILY						
TRANSIENT LODGING — MOTELS, HOTELS						
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES						
AUDITORIUMS, CONCERT HALLS AMPITHEATERS						
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS						
PLAYGROUNDS, NEIGHBORHOOD PARKS						
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETARIES						
OFFICE BUILDINGS, BUSINESS, COMMERCIAL AND PROFESSIONAL						
INDUSTRIAL, MANUFACTURING, UTILITIES, AGRICULTURE						

Source: "Guidelines for the Preparation and Content of Noise Elements of the General Plan",  
Calif. Office of Noise Control, Feb. 1976.

FIGURE 18

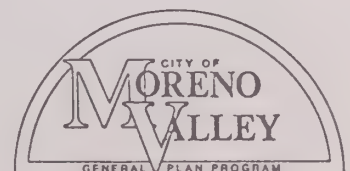






TABLE III-I

## NORMALIZED CNEL CORRECTIONS

Type of Correction	Description	Measured CNEL <sup>2</sup> Change (dBA)
Seasonal Correction	Summer (or year-round operation).	0
	Winter only (or windows always closed).	-5
Correction for Outdoor Residual Noise Level	Quiet suburban or rural community (remote from large cities and from industrial activity and trucking).	+10
	Quiet suburban or rural community (not located near industrial activity).	+5
	Urban residential community (not immediately adjacent to heavily travelled roads and industrial areas.	0
	Noisy urban residential community (near relatively busy roads or industrial areas).	-5
	Very noisy urban residential community.	-10
Correction for Previous Exposure and Community Attitudes	No prior experience with the intruding noise.	+5
	Community has had some previous exposure to noise but little effort is being made to control the noise. This correction may also be applied in a situation where the community has not been exposed to the noise previously, but the people are aware that bona fide efforts are being made to control the noise.	0
	Community has had considerable previous exposure to the intruding noise and the noise maker's relations with the community are good.	-5
	Community aware that operation causing noise is very necessary and it will not continue indefinitely. This correction can be applied for an operation of limited duration and under emergency circumstances.	-10
Pure Tone or Impulse	No pure tone or impulsive in character.	0
	Pure tone or impulsive character present.	-5

<sup>1</sup> Source: "Guidelines for the Preparation and Content of Noise Elements of the General Plan", California Office of Noise Control, February 1976.

<sup>2</sup> Corrections to be added to the measured CNEL to obtain normalized CNEL.

A conditionally acceptable designation implies that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use type is made and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

The Comprehensive General Plan includes typical noise contour locations adjacent to arterial, major, and secondary highways. For design purposes, the County suggests that developments adjacent to these roadways utilize typical noise levels (summarized in Table III-J) considered representative of the ultimate noise environment unless other factors such as unusual topographic features can be demonstrated to significantly alter the noise levels on-site. As indicated in Table III-J, the 65 CNEL contour adjacent to an arterial highway is 155 feet from the roadway centerline versus 150 feet from the centerline for a major highway.

TABLE III-J

## TYPICAL DESIGN NOISE LEVELS OF MASTER PLANNED HIGHWAYS

Roadway (Speed)	Design A.D.T.	Distance to CNEL Contours (ft.) <sup>1</sup>		
		70 dBA	65 dBA	60 dBA
Arterial Highway (55 mph)	24,000	70	155	315
Major Highway (55 mph)	24,000	65	150	310
Secondary Highway (55 mph)	20,000	45	130	270

<sup>1</sup> Distance is measured from the centerline of each roadway.

<sup>2</sup> Source: County of Riverside Comprehensive General Plan, March 1984.

# LAND USE COMPATIBILITY CHART FOR COMMUNITY NOISE

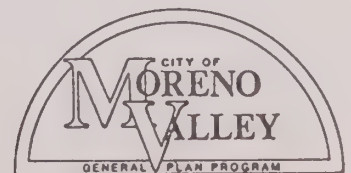
## RIVERSIDE COUNTY STANDARDS

	Land Uses	CNEL or Ldn Value (dba)							
		50	55	60	65	70	75	80	85
Noise Sensitive Receptor	Residential Land Uses: Single and Multiple Family Dwellings, Group Quarters, Mobilehomes	A		B		C		D	
	Transient Lodging: Hotels, Motels		A		B		C		D
	School Classrooms, Libraries, Churches, Hospitals, Nursing Homes, etc.		A		B		C		D
	Recreational Land Uses: Golf Courses, Open Space Areas with walking, bicycling or horseback riding trails, water based recreation areas where motorized boats and jet-skis are prohibited.	A		B		C		D	
	Office Buildings, Personal, Business, and Professional Services		A		B		C		D
	Auditoriums, Concert Halls, Amphitheaters, Music Shells (maybe noise sensitive or noise producer)		B					D	
	Sports Arenas, Outdoor Spectator Sports			B				D	
Noise Producer	Recreational Land Uses: Playgrounds, Neighborhood Ball Parks, Motorcycle Parks, and Water-based Recreation Areas where motorized boats and jet-skis are permitted.		A		B		C		D
	Commercial Land Uses: Retail trade, Movie Theaters, Restaurants, bars, entertainment related commercial activities, services.		A			B		C	
	Commercial Land Uses: Wholesale, Industrial/Manufacturing, Transportation, Communications and Utilities.			A					D

### Explanation of Land Use Consequences:

- A Normally Acceptable. With no special noise reduction requirements assuming standard construction.
- B Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.
- C Generally Unacceptable. New construction is discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- D Land Use Discouraged. New construction or development should generally not be undertaken.

FIGURE 19







#### 4. EXISTING NOISE ENVIRONMENT

As a prerequisite to the formation of an effective noise control program, a community must be cognizant of the location and extent of local noise problems; namely major noise source locations, the number of persons exposed, and what levels of exposure exist. A community noise exposure inventory is typically developed showing the current and future number of people in the community exposed to various noise levels. An inventory of this type illustrates the significance of various noise sources in the community in terms of the population impacted. This data can then be utilized to focus noise control and abatement efforts to achieve the most good. In some cases, the control of offending noise sources will be beyond the City's jurisdiction; however, by recognizing these limitations more effective land use strategies can be developed.

Figure 20 illustrates noise measurement locations. Location 21 indicates the major stationary noise source within the City of Moreno Valley. All other measurement locations shown are noise sensitive receptors adjacent to transportation noise sources.

##### a. SENSITIVE NOISE RECEPTORS

Land uses deemed noise sensitive by the State of California include: schools, hospitals, rest homes, long-term care and mental care facilities. Some jurisdictions elect to also consider day care centers, single family dwellings, mobile home parks, churches, libraries, and recreation areas sensitive to noise. Moderately sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, outpatient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs and equestrian clubs.

Relatively insensitive uses are business, commercial, and professional developments. Insensitive noise receptors include industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, motorcycle parks, rifle ranges, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Current land uses located within the City of Moreno Valley that are sensitive to intrusive noise include residential uses and schools. The general locations and extent of residential land uses can be found in the Community Development Element.

Figure 20 details the locations of educational facilities within the city limits.

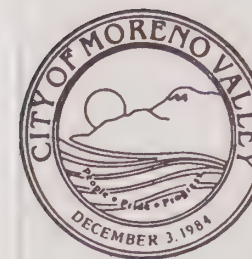
Noise measurements were taken in these sensitive areas to determine the noise level during the peak hour. Presently there are no hospitals, long-term or mental care facilities, or rest homes located in the City of Moreno Valley.

Based upon existing CNEL contours for freeway and airport noise, the population currently within the City affected by various noise levels can be determined. The approximate number of people exposed to noise levels in excess of 70 CNEL is 2,272. Given the most recent population estimate, 2.8 percent of the inhabitants of Moreno Valley are currently exposed to noise levels above 70 CNEL. The number of residents exposed to noise levels in excess of 65 CNEL is 4,922. The percentage of the population currently exposed to noise levels greater than 65 is 6.2. Approximately 7,322 people are exposed to noise levels in excess of 60 CNEL, which represents 9.2 percent of the City's population residing in locations where noise levels exceed 60 Ldn<sup>13</sup> (see Table III-K).

Lowering speed limits on roadways would decrease vehicle velocities and thereby, significantly reduce the extent of noise impacted areas. In addition, homes and outdoor activity areas may presently be set back sizable distances from the roadway. Furthermore, some residences incorporate noise barriers which reduce noise exposures in the shielded areas.

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<sup>13</sup> Refer to definition of CNEL and Ldn in Section 1 a, Noise Rating Schemes. These two metrics are typically within one dba of each other.



## NOISE MONITORING AT SENSITIVE RECEPTOR LOCATIONS

### LEGEND



SCHOOL



PRESCHOOL



RESIDENTIAL



S.D.G.&E. NOISE SOURCE

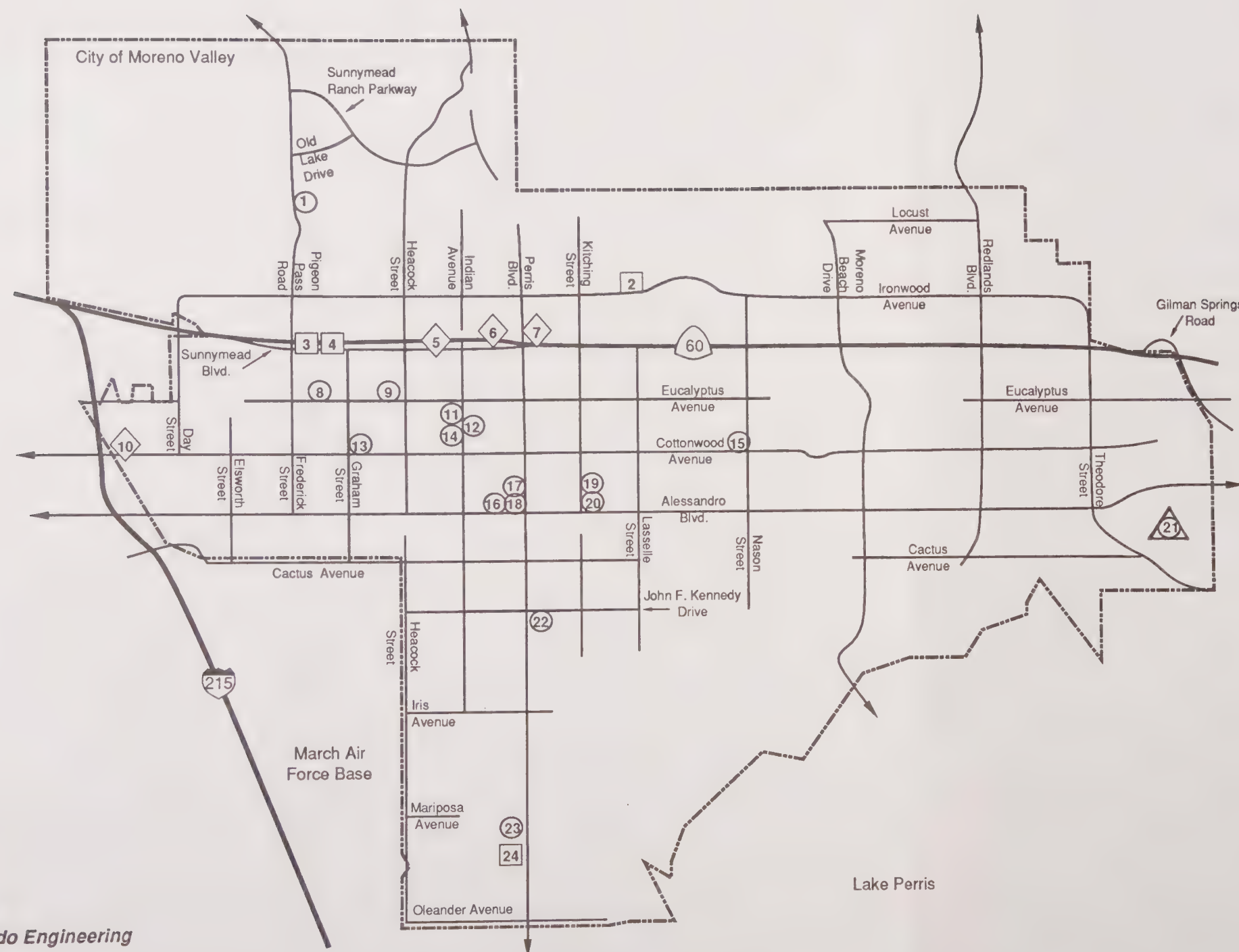


FIGURE 20





Table III-K

**Current Exterior Noise Contours  
Adjacent to Freeways within Moreno Valley**

Roadway	Current A.D.T.	CNEL at 100 ft.	Distance to Contour (ft)*		
			70 dBA	65 dBA	60 dBA
State Route 60					
-E/O Day Street	59,000	77.1	253	535	1148
-E/O Pigeon Pass Road	59,000	77.1	253	535	1148
-E/O Perris Boulevard	32,000	74.4	173	358	764
State Route 215					
-N/O Cactus Avenue	38,500	73.7	165	347	743
-N/O Alessandro Blvd.	35,500	73.4	157	329	704

**Future Exterior Noise Contours  
Adjacent to Freeways within Moreno Valley**

Roadway	Future A.D.T.	CNEL at 100 ft.	Distance to Contour (ft)*		
			70 dBA	65 dBA	60 dBA
State Route 60					
-E/O Day Street	80,000	78.4	307	654	1406
-E/O Pigeon Pass Road	75,000	78.1	295	627	1346
-E/O Perris Boulevard	45,000	75.9	213	447	958
State Route 215					
-N/O Cactus Avenue	80,000	76.9	263	562	1209
-N/O Alessandro Blvd.	85,000	77.2	274	585	1259

\* Distance is measured from centerline of outside lane.

#### b. SIGNIFICANT NOISE SOURCES

Two types of noise sources should be considered: stationary and mobile noise sources. Fixed sources of noise include: airports, drag strips, industrial and construction activities, air conditioning/refrigeration units, whistles or bells (signaling breaks or shift changes), shooting ranges, rock concerts, high level radio, stereo or television usage, power tools, lawnmowers, appliances used in the home, and barking dogs. Mobile noise sources are typically transportation-related and include: aircraft, boats, trains, automobiles, trucks, buses, and off-road vehicles.

Although construction activities associated with public works projects or private development occur throughout the city, they are localized and temporary. There are no concert halls, drag strips, boating areas, or shooting ranges in Moreno Valley. With the exception of March Air Force Base and the Moreno Valley Compressor Station, (See Location 21, Figure 20) many of the other fixed sources of noise are typically accepted as part of the ambient or background noise level.

Motor vehicles on the street system within the City are a major source of continuous noise. State Route 60 and Interstate 215 carry appreciable volumes of both truck and commuter traffic. As a result motor vehicles affect the noise environment of both the existing and planned land uses adjacent to the master planned circulation system.

#### c. CURRENT NOISE LEVELS

Aircraft and Airport Noise. Noise exposure contours around airports are determined from the number and type of aircraft using the airport, the magnitude and duration of each flyover, flight paths, and the time of day when flights occur. The Airport Noise Standards contained in Title 4 of the California Administrative Code specify that airports shall not permit noise exposures of 65 CNEL to extend into residential or school areas.

March Air Force Base (AFB), a United States Air Force Installation, lies west of and adjacent to the City of Moreno Valley. The primary missions of the AFB are global aerial refueling conducted by the 22nd Air Refueling Wing and the long-range, long endurance search and rescue operations of the 303rd Air Rescue and Recovery Squadron. The airfield is also utilized by aircraft from Strategic Air Command (SAC) bases and the California Air National Guard. At this time no significant changes in flight operations are anticipated and aircraft numbers and types will remain the same but may become quieter (as noisy aircraft are retired and replaced by newer and quieter aircraft).<sup>14</sup>

An inventory and analysis of the flight operations at this airfield, including type of aircraft that use the base, where the aircraft fly, altitude of flight, the number of times an area is overflown and the time of day the airport is in operation, was prepared for the recent Air Installation, Compatible Use Zone (AICUZ) study. The principal jet aircraft operating training missions from March AFB and the average daily number of operations are shown in Table III-L. KC-10 and KC-135 tankers are two of the loudest aircraft using the airfield. The quietest aircraft frequenting the airfield are the T-38's.

Table III-L

### MARCH AIR FORCE BASE PRINCIPLE JET AIRCRAFT OPERATIONS

Type	Daily Operations	Percent of Daily Operations
KC-10	50	32
KC-135	27	17
C-141	14	9
F-4	18	11
HC-130	9	6
T-38	6	16
T-39	3	2
T-37	6	4
Other	5	3
TOTAL	138	100

<sup>14</sup>Source: Telephone conversation October 29, 1987 with Ms. Catherine Rubin, Deputy Chief of Public Affairs, March AFB.

Normal operating hours for the March airfield are conducted from 6:00 AM to 10:00 PM. Outside of this time period, only essential aircraft arrivals and departures are conducted. Runway 32 (at 13,300 feet in length) is the primary runway, active for 95% of the operations. Aircraft approach from the south and depart toward the north. These northerly departures are the major noise problem for March AFB. Recent changes in airfield policy detail the usage of Runway 14 during calm weather conditions. Flight operations are continually reviewed to minimize the area noise impacts. Moreover, air crews are continually briefed and reminded of the prescribed flight patterns and the restrictions associated with each.

The 1984 March AFB AICUZ study was designed to promote land use development near the airfield, while protecting public health and safety and continuing aircraft operations. Military aircraft installations have land use planning compatibility or Compatible Use District (CUD) designations. The CUD is a geographical area which reflects the combined effects of noise, flight tracks, altitudes and accident potential with various land uses. The AICUZ study identifies seven CUDs which are applicable to March AFB.

Portions of the City of Moreno Valley are contained within CUDs 2, 7, 8, 9, 12 and 13. High density growth should be directed away from the areas of greatest conflict (CUDs 2, 7, 8 & 9). With the exception of forestry activities and livestock farming, uses in the resource production, extraction, and open space category in these districts are compatible essentially without restriction. Where areas of lesser conflict exist (CUDs 12 & 13), noise reduction measures (designed to achieve outdoor to indoor attenuation of 30 and 25 dBA, respectively) will probably be sufficient to alleviate potential problems. Figure 21 provides current Ldn contours based upon the most recent inventory and analysis of March airfield operations. CUD 12 is the area between the



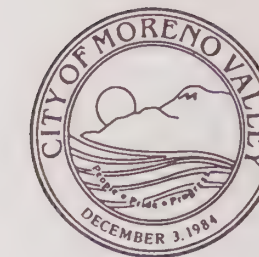
70 and 75 Ldn contours. CUD 13 is the area between the 65 and 70 Ldn contours. Residential development is discouraged in CUD 12 and CUD 13.

Figure 21 identifies the areas within the City of Moreno Valley that are affected by noise resulting from operations associated with March AFB. The AICUZ study specifies that compatible land use should be accomplished through community land use planning and control processes. It is, therefore, the responsibility of the City to adopt compatible land uses in high noise exposure areas according to accepted planning and development practices.

Industrial Noise. Industrial noise is generated by the Moreno Valley Compression Station, which is owned and operated by the San Diego Gas and Electric Company. The plant is located south of Alessandro Boulevard, in the southeastern corner of the city (Figure 20, location 21). Noise generated by this stationary noise source is constant over 24 hours and seven days per week. The highest noise level that occurs is the reactivation of the compressor after a shutdown of the system, a procedure that rarely occurs.

Noise measurements were taken by Endo Engineering in October 1987, when the compression station was operating below its maximum capacity. The first measurement was taken at the eastern property line of the facility, adjacent to a minor noise source. The measured noise level was 64.4 dBA Leq. At a point adjacent to the compressor at the northern property line (with no intervening barriers), the noise level was 78.7 dBA Leq. Land in the vicinity of the compressor station is currently vacant and this is compatible with the measured noise levels. When development occurs adjacent to the plant, planning processes will be required to ensure compatible uses.





# MARCH AIR FORCE BASE NOISE CONTOURS

## LEGEND






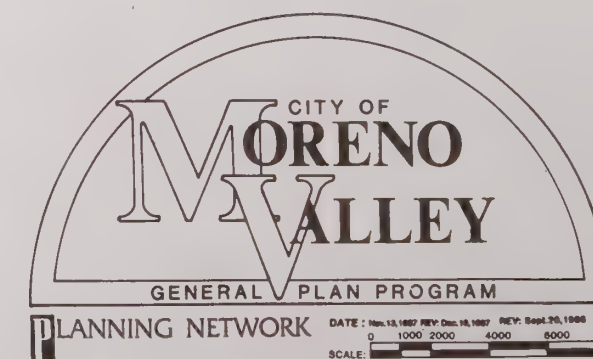
-  65 Ldn CONTOUR
-  70 Ldn CONTOUR
-  75 Ldn CONTOUR
-  80 Ldn CONTOUR
-  ACCIDENT POTENTIAL ZONE



FIGURE 21







An extensive acoustical analysis commissioned by San Diego Gas and Electric Company is currently underway. The report is scheduled for release by December 15, 1987 and at that time significant findings will be incorporated into the City Noise Element. The report will address noise levels on-site and at varying locations off-site. Future land uses in the vicinity of the compressor station will be required to address the noise levels identified in the analysis.

Highway and Motor Vehicle Noise. The current noise levels adjacent to each of the City's master planned roadway links (see Figure 22) were modeled to determine the location and extent of current noise problems. Table III-M provides the current noise levels adjacent to the master planned links based upon current traffic volumes, lane geometrics, and posted speed limits. A five percent truck mix was assumed for truck routes and 2.58 percent was assumed for all other roadways. The temporal distribution and truck mix for each link is available under separate cover.

The noise levels at 100 feet from each roadway centerline shown in Table III-M were determined by modeling each facility with the Highway Traffic Noise Prediction Model developed by the Federal Highway Administration (RD-77-108). This model is currently in use nationwide and has been verified with extensive field measurements. It accepts various parameters including: the traffic volume, vehicle mix and speed, and roadway geometry in computing equivalent noise levels during typical daytime, evening, and nighttime hours. The resultant noise levels are then weighted, summed over 24 hours, and output as the CNEL value at the observer. CNEL contours are subsequently located through a series of computerized iterations designed to identify the 60, 65, and 70 CNEL contour locations.

As shown in Table III-M, the roadways where current traffic volumes generate the highest noise levels at 100 feet are:

- Alessandro Boulevard (56.3 - 67.4 CNEL)
- Cactus Avenue (51.4 - 63.1 CNEL)
- Perris Boulevard (54.2 - 65.7 CNEL)
- Indian Avenue (54.7 - 64.0 CNEL)
- Heacock Street (57.5 - 64.0 CNEL)



## EXISTING MASTER PLANNED ROADWAY LINKS

### LEGEND

**10** ROADWAY LINK  
NUMBER

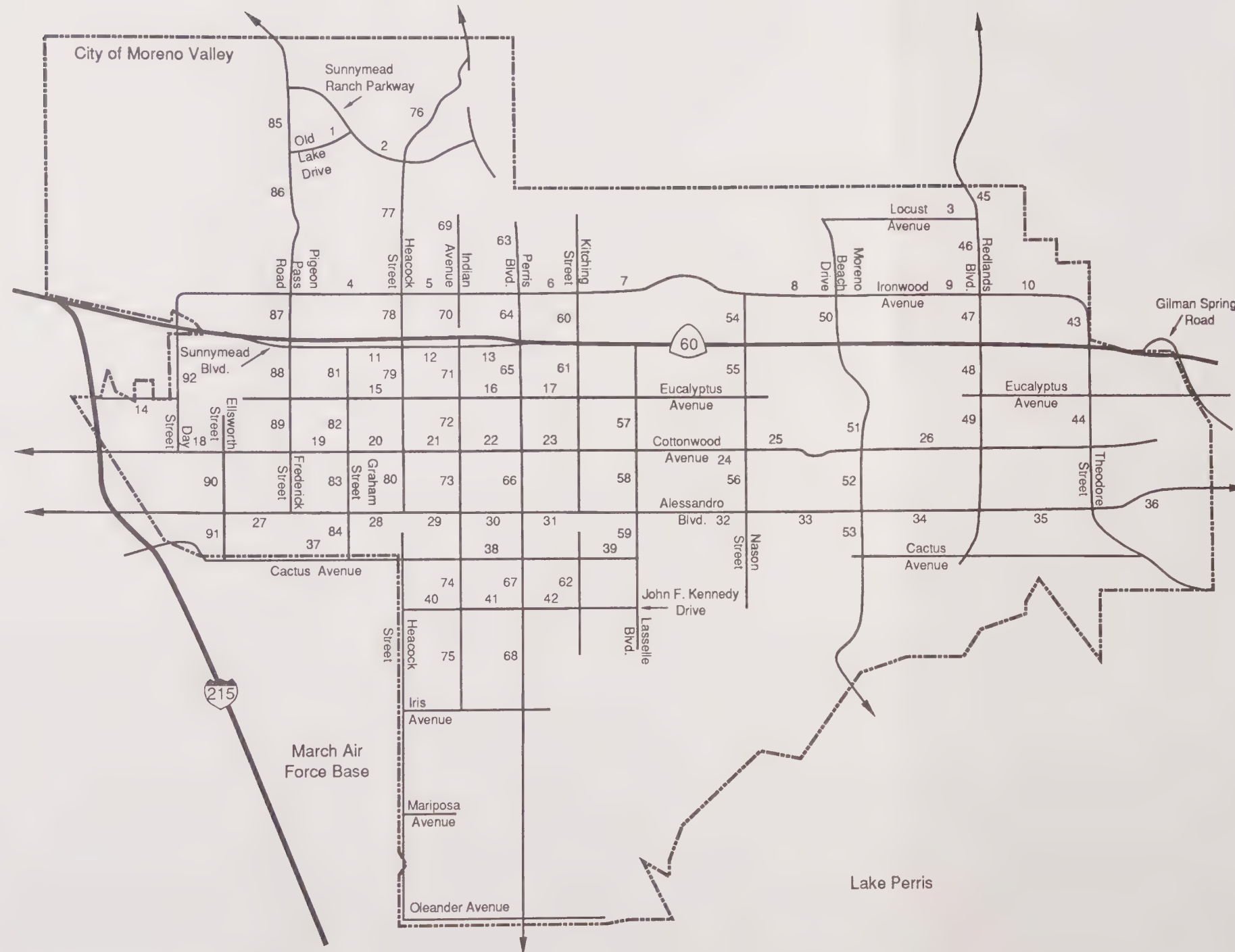


FIGURE 22





Table III-M

# CURRENT EXTERIOR NOISE EXPOSURE ADJACENT TO MASTER PLANNED ROADWAYS

Roadway	Current <sup>1</sup> A.D.T.	CNEL at 100 ft. <sup>2</sup>	Distance to Contour (ft.)		
			70 dBA	65 dBA	60 dBA
<b>Old Lake Drive</b>					
Link 1	400	48.0	ROW	ROW	ROW
<b>Sunnymead Ranch Parkway</b>					
Link 2	800	51.0	ROW	ROW	ROW
<b>Locust Avenue</b>					
Link 3	600	48.4	ROW	ROW	ROW
<b>Ironwood Avenue</b>					
Link 4	4,900	57.6	ROW	33	69
Link 5	10,000	60.7	ROW	52	111
Link 6	4,500	57.2	ROW	ROW	65
Link 7	1,700	53.0	ROW	ROW	ROW
Link 8	1,400	52.1	ROW	ROW	30
Link 9	700	49.1	ROW	ROW	ROW
Link 10	400	50.2	ROW	ROW	ROW
<b>Sunnymead Boulevard</b>					
Link 11	11,400	62.5	ROW	69	146
Link 12	15,400	62.5	ROW	69	145
Link 13	2,200	52.7	ROW	ROW	36
<b>Eucalyptus Avenue</b>					
Link 14	1,300	50.4	ROW	ROW	26
Link 15	1,800	51.9	ROW	ROW	32
Link 16	900	48.9	ROW	ROW	24
Link 17	1,300	50.5	ROW	ROW	27
<b>Cottonwood Avenue</b>					
Link 18	4,000	56.7	ROW	ROW	61
Link 19	8,200	60.0	ROW	51	99
Link 20	7,000	59.2	ROW	ROW	88
Link 21	6,700	59.0	ROW	ROW	86
Link 22	5,300	58.0	ROW	ROW	74
Link 23	3,800	56.5	ROW	ROW	58
Link 24	1,100	54.6	ROW	ROW	43
Link 25	300	48.9	ROW	ROW	ROW
Link 26	400	50.2	ROW	ROW	ROW
<b>Alessandro Boulevard</b>					
Link 27	26,200	67.4	69	143	304
Link 28	24,300	67.1	66	136	289
Link 29	25,900	67.4	69	141	302
Link 30	16,800	65.5	54	107	227
Link 31	7,600	62.1	ROW	66	135
Link 32	6,000	62.9	35	73	156
Link 33	4,600	61.8	ROW	61	131
Link 34	4,200	59.3	ROW	42	90
Link 35	1,700	57.4	ROW	31	67
Link 36	1,300	56.3	ROW	ROW	56

<sup>1</sup> A.D.T. is the average daily two-way traffic volume.

<sup>2</sup> All distances are measured from the centerline; ROW means the contour falls within the right-of-way.

Table III-M

# CURRENT EXTERIOR NOISE EXPOSURE ADJACENT TO MASTER PLANNED ROADWAYS

(cont'd)

Roadway	Current <sup>1</sup> A.D.T.	CNEL at 100 ft. <sup>2</sup>	Distance to Contour (ft.)		
			70 dBA	65 dBA	60 dBA
<b>Indian Avenue</b>					
Link 69	3,500	54.7	ROW	ROW	45
Link 70	3,400	54.6	ROW	ROW	44
Link 71	9,400	59.0	ROW	ROW	85
Link 72	9,300	59.0	ROW	ROW	85
Link 73	8,900	58.8	ROW	ROW	82
Link 74	15,700	64.0	43	86	182
Link 75	3,400	57.3	ROW	ROW	67
<b>Heacock Street</b>					
Link 76	3,600	57.5	ROW	36	69
Link 77	8,400	61.1	ROW	55	118
Link 78	15,100	62.4	32	67	143
Link 79	17,100	62.9	34	72	155
Link 80	15,700	64.0	45	86	181
<b>Graham Street</b>					
Link 81	4,300	57.0	ROW	30	63
Link 82	3,800	56.6	ROW	ROW	60
Link 83	1,550	52.5	ROW	ROW	36
Link 84	8,800	61.4	ROW	58	122
<b>Pigeon Pass Road</b>					
Link 85	1,100	52.4	ROW	ROW	ROW
Link 86	2,900	56.6	ROW	ROW	59
Link 87	9,200	61.6	ROW	59	127
<b>Frederick Street</b>					
Link 88	11,300	62.6	ROW	71	147
Link 89	8,400	61.4	ROW	60	122
<b>Elsworth Street</b>					
Link 90	3,600	53.2	ROW	ROW	37
Link 91	3,200	54.2	ROW	ROW	42
<b>Day Street</b>					
Link 92	2,000	52.3	ROW	ROW	31

<sup>1</sup> A.D.T. is the average daily two-way traffic volume.<sup>2</sup> All distances are measured from the centerline; ROW means the contour falls within the right-of-way.

Table III-M

**CURRENT EXTERIOR NOISE EXPOSURE ADJACENT TO  
MASTER PLANNED ROADWAYS**  
(cont'd)

Roadway	Current <sup>1</sup> A.D.T.	CNEL at 100 ft. <sup>2</sup>	Distance to Contour (ft.)		
			70 dBA	65 dBA	60 dBA
<b>Cactus Avenue</b>					
Link 37	7,700	63.1	37	75	159
Link 38	1,600	51.4	ROW	ROW	30
Link 39	1,800	51.9	ROW	ROW	32
<b>John F Kennedy Drive</b>					
Link 40	6,600	59.0	ROW	ROW	87
Link 41	7,300	59.5	ROW	48	92
Link 42	6,100	58.5	ROW	38	80
<b>Theodore Street</b>					
Link 43	500	52.1	ROW	ROW	30
Link 44	500	52.1	ROW	ROW	30
<b>Redlands Boulevard</b>					
Link 45	3,500	60.6	24	51	109
Link 46	3,500	60.6	24	51	109
Link 47	3,400	60.5	ROW	50	107
Link 48	2,100	58.4	ROW	ROW	78
Link 49	2,100	58.4	ROW	ROW	78
<b>Moreno Beach Drive</b>					
Link 50	1,100	54.6	ROW	ROW	43
Link 51	1,300	55.3	ROW	ROW	48
Link 52	1,800	56.7	ROW	28	60
Link 53	1,300	55.3	ROW	ROW	48
<b>Nason Street</b>					
Link 54	900	48.8	ROW	ROW	ROW
Link 55	1,600	51.3	ROW	ROW	26
Link 56	1,300	50.4	ROW	ROW	ROW
<b>Lasselle Street</b>					
Link 57	400	45.3	ROW	ROW	ROW
Link 58	600	47.0	ROW	ROW	ROW
Link 59	600	47.0	ROW	ROW	ROW
<b>Kitching Street</b>					
Link 60	400	43.7	ROW	ROW	ROW
Link 61	1,600	51.3	ROW	ROW	ROW
Link 62	1,600	52.7	ROW	ROW	34
<b>Perris Boulevard</b>					
Link 63	2,200	54.2	ROW	ROW	44
Link 64	12,900	63.1	ROW	75	158
Link 65	23,800	65.7	54	111	238
Link 66	21,600	65.3	51	104	223
Link 67	20,800	65.2	50	102	217
Link 68	14,400	63.7	ROW	83	172

<sup>1</sup> A.D.T. is the average daily two-way traffic volume.

<sup>2</sup> All distances are measured from the centerline; ROW means the contour falls within the right-of-way.

Alessandro Boulevard carries the largest traffic volumes at the highest speeds. Of the 92 links analyzed, 77 links generate a 70 CNEL contour that falls within the right-of-way. In addition, 55 links generate a 65 CNEL contour that falls within the right-of-way. High noise levels are typically the result of: (1) large traffic volumes, (2) high vehicle speeds, and (3) high truck mixes. Of the twelve links generating sound levels in excess of 63.0 CNEL, eleven are designated truck routes. The twelfth link (Link 74, Indian Avenue) has a posted speed limit of 45 mph.

#### d. COMMUNITY NOISE EXPOSURE

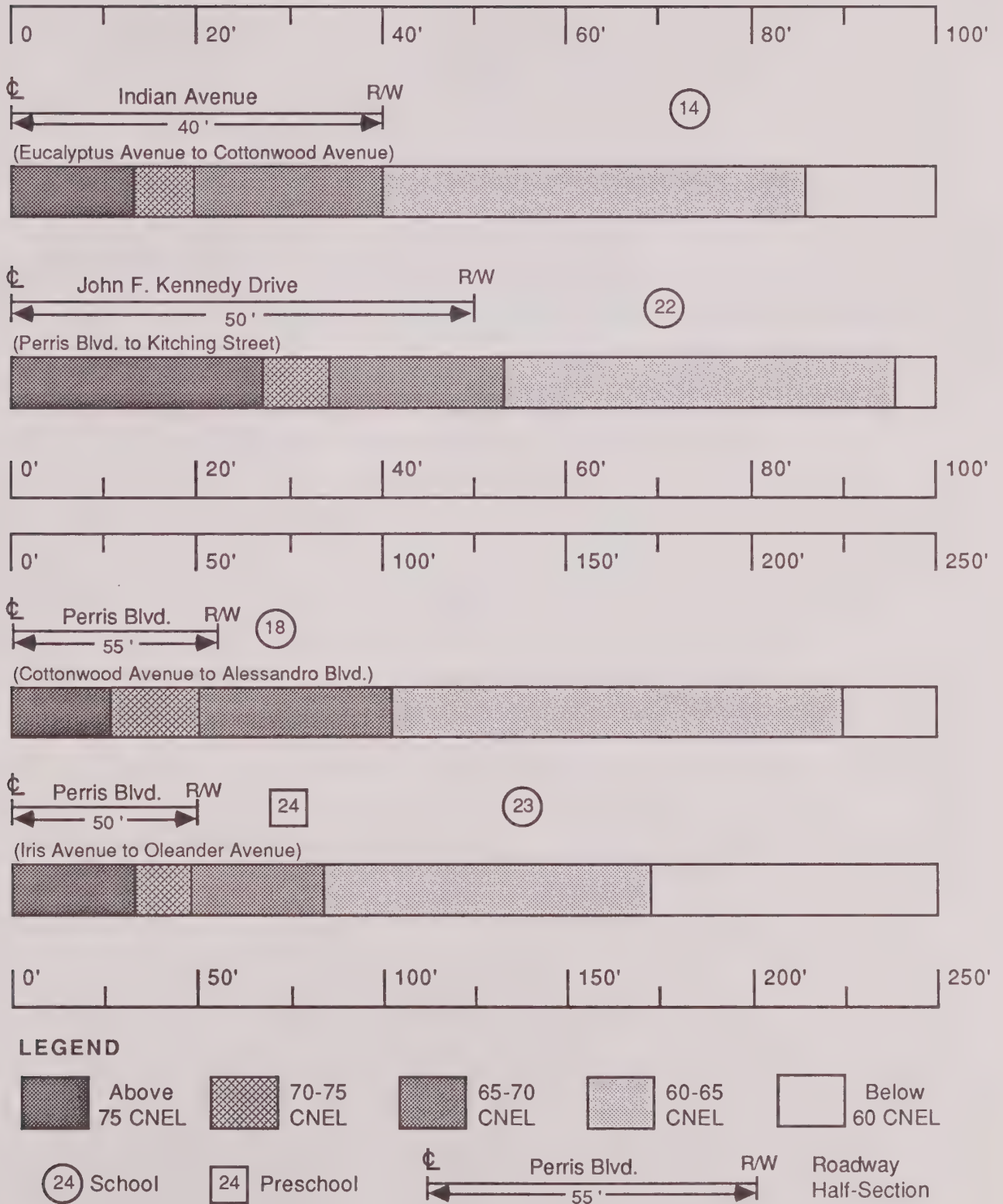
A comparison of the current sensitive noise receptor locations shown in Figure 20 to the noise levels included in Table III-N reveals the location of potential incompatibilities between land use and noise exposure. Figure 23 illustrates the relationship of selected sensitive noise receptors to the nearby roadway and current noise contours. The receptor identification numbers allow the identification of each receptor located near a master planned roadway link to be determined from the following list. For example, a sensitive school facility is shown adjacent to Perris Boulevard between Cottonwood Avenue and Alessandro Boulevard.

Figure 23 also illustrates the distance from the roadway centerline to each receptor and the unattenuated exterior noise level at each receptor location. Using the same school facility, it can be seen that the building lies approximately 70 feet from the Perris Boulevard centerline at its closest point. The unattenuated exterior noise level is between 65 and 70 CNEL at this location. Since noise is logarithmic rather than linear in nature, the structure is exposed to approximately 68 CNEL at present.

Noise levels were measured adjacent to sensitive receptors at various locations throughout the City. The types of sensitive receptors included: single-family residential units, apartments, preschools, day care centers, and educational facilities. Measurement site locations are illustrated in Figure 20 and described in Table III-N.



# CURRENT NOISE EXPOSURE



6

6

6

Several school and preschool locations experience exterior peak hour noise levels that appear to be undesirable for outdoor recreational uses. Interior noise levels at these locations are also of concern. However, several schools incorporate architectural and design techniques that attenuate interior levels further than the 20 dBA attenuation for residential construction. Furthermore, the noise levels represent peak hour levels when schools are not typically in session.

The noise measurements taken at residences occurred at the closest receptor locations to the State Route 60 and Interstate 215 freeways. The measured noise levels represent the sound exposure in exterior areas during the evening peak hour for those residents adjacent to the transportation corridors.

## 5. NOISE ATTENUATION PRINCIPLES

### a. NOISE ATTENUATION WITH DISTANCE

In an area which is relatively flat and free of barriers, the noise level resulting from a single "point source" of noise drops by 6.0 decibels for each doubling of distance or 20 decibels for each factor of ten in distance. This applies to fixed noise sources such as industries, refrigeration/air conditioning units, and bells at schools. It also applies to individual mobile noise sources such as an airplane, motorboat, train or idling automobile.

For a "line source" of noise, such as a heavily traveled roadway, the noise level drops off by a nominal value of 3.0 decibels for each doubling of distance between the noise source and noise receiver. Environmental conditions such as the wind direction and speed, temperature gradients, the characteristics of the ground (hard or soft) and the air (relative humidity), the presence of grass, shrubbery and trees combine to increase the actual attenuation achieved outside of laboratory conditions to 4.5 decibels per doubling of distance.

Table III-N

# SENSITIVE NOISE RECEPTOR EXPOSURE LEVELS FROM ROADWAY NOISE

Site No.	Distance to Centerline	Receptor Type	Leq <sup>1</sup> (dBA)
1	810'	School	61.7
2	128'	Preschool	61.3
3	274'	Preschool	65.5
4	274'	Preschool	65.5
5	145'	Multi-Family Residential	72.4
6	155'	Single-Family Residential	68.9
7	156'	Single-Family Residential	65.9
8	162'	School	59.9
9	121'	School	66.2
10	115'	Single-Family Residential	73.3
11	145'	School	62.5
12	62'	School	65.6
13	152'	School	59.3
14	73'	School	70.3
15	134'	School	58.5
16	112'	School	61.8
17	88'	School	62.8
18	70'	School	70.3
19	86'	School	56.3
20	105'	School	69.2
22	55'	School	70.4
23	137'	School	63.9
24	72'	Preschool	66.7

<sup>1</sup> The noise level is adjusted to reflect maximum one hour Leq values based upon the peak hour traffic volume compared to the traffic volume during the noise measurement period.

NOTE: Locations identified on Figure 20.



In its "Noise Assessment Guidelines", the federal Department of Housing and Urban Development uses a 4.5 decibel drop for each doubling of distance in assessing roadway noise. Thus, a noise level of 74.5 decibels at 50 feet from the highway centerline would be attenuated naturally to 70.0 decibels at 100 feet, 65.5 decibels at 200 feet, 61.0 decibels at 400 feet and so forth. This 4.5 decibel reduction with doubling of distance was applied throughout the analyses in this report.

#### b. GENERAL METHODS TO REDUCE NOISE IMPACTS

There are several basic techniques available to minimize the adverse effects of noise on sensitive noise receivers. Classical engineering principles suggest controlling the noise source whenever feasible and protecting the noise receptors when noise source control mechanisms have been pre-empted by State and Federal governments.

Those noise producers within local jurisdiction include: industrial processes, electrical substations, wastewater treatment facilities, transportation system locations, swimming pool/spa pump motors, air conditioning units, drive-through speakers, siren usage and local government controlled or sanctioned activities (City vehicles, public works projects). Regulatory mechanisms available to control these noise sources include: (1) the City Noise Ordinance, (2) the application of "conditions of approval" on new developments, (3) land use policy and approval practices as outlined in the General Plan or Comprehensive Plan documents, and (4) the provision of noise information in permit applications for swimming pools, spas, and air conditioning systems.

In the event that source control mechanisms have been employed and yet noise impacts persist or are projected to occur, additional techniques should be considered. Acoustic site planning, architectural design, acoustic construction techniques and the erection of noise barriers are all effective methods for reducing noise impacts.

Acoustic site planning involves the careful arrangement of land uses, lots and buildings to minimize intrusive noise levels. The placement of noise compatible land uses between the roadway and more sensitive uses is an effective planning technique. The use of buildings as noise barriers, and their orientation away from the source of noise, can shield sensitive activities, entrances and common open space areas. Clustered and planned unit developments can maximize the amount of open space available for landscaped buffers next to heavily traveled roadways and thereby allow aesthetic residential lot setbacks in place of continuous noise barriers.

Acoustic architectural design involves the incorporation of noise reduction strategies in the design and lay-out of individual structures. Building heights, room arrangements, window size and placement, balcony and courtyard design, and the provision of air conditioning all play an important role in shielding noise sensitive activities from intrusive sound levels.

Acoustic construction is the treatment of various parts of a building to reduce interior noise levels. Acoustic wall design, doors, ceilings and floors, as well as dense building materials, the use of acoustic windows (double glazed, double paned, thick, non-openable, or small with air-tight seals) and the inclusion of maximum air spaces in attics and walls are all available options.

Noise barriers are relatively easy to design and inexpensive. Consequently, they are often used indiscriminately in place of the techniques discussed above, hence developments where each road is bordered by six foot block walls behind which residences are "protected" from excessive noise levels. Ideally, noise barriers incorporate the placement of berms, walls or a combination of the two in conjunction with appropriate landscaping to effect an aesthetically pleasing environment. Where space is available (clustered developments) a meandering earth berm is both effective and pleasing. Where space is restricted, a wall is effective. In either case, however, thick landscaping (without deciduous plants) should be specified to reduce the visual impact of the barrier and retain the rural ambiance.

## F. AIR QUALITY

### 1. EXISTING SETTING

The Moreno Valley study area is located near the eastern edge of the South Coast Air Basin. This Basin is composed of the coastal plain and tributary valleys that extend across Los Angeles and Orange Counties, as well as the western portions of Riverside and San Bernardino Counties. The Moreno Valley study area's air quality is largely influenced by the air quality in western portions of the Basin. Two primary factors influence the study area's current air quality: the climate, and the amount of indicator pollutants emitted into the air.

#### a. CLIMATE

The climate of the study area is typical of Southern California's Mediterranean climate with hot, dry summers and mild, moist winters. This pattern is influenced by the semi-permanent high pressure zone of the eastern Pacific Ocean which is responsible for deflecting storms away from the Basin and allowing for the mild climate indigenous to the region. However, occasional periods of extreme heat, Santa Ana winds, and winter storms interrupt the otherwise mild weather pattern.

Moreno Valley has an annual average mean temperature for January and July of 51 and 76 degrees Fahrenheit, respectively. During the summer the maximum temperature ranges from approximately 90 to 100 degrees Fahrenheit. According to the California Department of Water Resources (DWR), rainfall can vary greatly from year to year, but averages from 11 to 14 inches annually within the study area. Relative humidity also varies greatly during the year, but averages 57 percent annually.

Winds are an important climatic feature with regard to air quality. The South Coast Air Quality Management District (SCAQMD) notes that the low average wind speeds of the South Coast Air Basin

have limited effectiveness in dispersing accumulated air pollutants. Instead, vertical currents induced by heating of the mountain slopes carry much of the pollution through mountain passes or upward and over Basin mountains during the spring and early summer months. From late summer through winter, however, winds originating in the mountains occur too late in the day to fully disperse pollutants, thus allowing them to accumulate within the Basin for one or more days.

Within this regional context, the Moreno Valley study area experiences an average of ten to fifteen mile per hour coastal daytime winds during summer, and five to eight mile per hour winter daytime winds. Nighttime winds during the summer emanate from the San Jacinto Mountains, southeast of the study area, and average three to six miles per hour. During winter, nighttime winds average six to ten miles per hour. The daytime winds originate off the coast and carry with them significant amounts of industrial and automobile air pollutants from the densely urbanized western portion of the Basin to the eastern portion of the Basin, including the study area.

From five to ten times a year, the study area is subjected to strong hot dry desert winds, locally termed "Santa Ana's". Such winds originate in the upper deserts and push their way through mountain passes within the San Bernardino Mountains, passing across the inland valleys, including Moreno Valley. Santa Ana winds can persist from several hours to a few days with average wind gusts being recorded at March Air Force Base of up to 41 to 57 miles-per-hour. Santa Ana winds generally occur during the spring and fall.

Inversions are a critical climatic factor that can significantly impede the vertical dispersion of air pollutants. Inversion layers can create an effective "lid" over the Basin, wherein temperature increases with altitude, thus obstructing vertical air movement. Air pollutants can no longer rise through the inversion, thereby concentrating within the Basin. Inversion layers generally dissipate during the day, once the ground temperature warms up to that of the air temperature.



b. AIR QUALITY

Moreno Valley is located between two monitoring stations operated by the SCAQMD. The SCAQMD has stated that air quality within the study area can be assumed to be the same as that of the nearest monitored stations. Since Moreno Valley is close to both the Perris and Riverside stations, air quality at both of these sites for the past three years reflects the City's current air quality measurements.

Air quality within the study area is the product of several factors: climate, location, topography, automobile and truck traffic, building activity, and industrial emissions.

Table III-O summarizes the amounts of key pollutants monitored by the SCAQMD. Carbon monoxide, oxides of nitrogen, sulfur dioxide, and photochemical oxidant are all found in relatively high levels in Moreno Valley's air.

Moreno Valley's chief air quality problem at present is ozone, the primary constituent of photochemical smog. Motor vehicle emissions accumulated throughout the Basin and transported to the study area are the main source of ozone. While traffic within Moreno Valley contributes to ozone in the air, it is only a fraction of the total monitored levels. The other three pollutants exist at levels well below federal and more stringent state standards.

Table III-O

## AIR QUALITY SUMMARY

	State Standard	Federal Standard	Year Measured	Monitoring Station	Maximum Reading	Days Over Standards
Ozone	.1 ppm 1 hr. avg.	.12 ppm 1 hr. avg.	1982	P	.28	140
				R	.31	145
			1983	P	.26	128
				R	.36	152
			1984	P	.22	137
				R	.32	176
Carbon Monoxide	9 ppm	9 ppm	1982	P	--	NM(2)
				R	8.0	0
			1983	P	--	NM
				R	6.29	0
			1984	P	--	NM
				R	6.25	0
Nitrogen Dioxide	.25 ppm 1 hr. avg.	.05 ppm yr. avg.	1982	P	--	NM
				R	.16	0
			1983	P	--	NM
				R	.19	0
			1984	P	--	NM
				R	.17	0
Sulphur Dioxide	.05 ppm 24 hr. avg.	.14 ppm 24 hr. avg.	1982	P	--	NM
				R	.02	0
			1983	P	--	NM
				R	.02	0
			1984	P	--	NM
				R	.02	0

(1) P = Perris Monitoring Station  
R = Riverside/Rubidoux Monitoring Station

(2) NM = Not Monitored

Source: South Coast Air Quality Management District, Air Quality Data, 1982, 1983, 1984.

In addition, two other air quality characteristics apply to Moreno Valley. Visibility is measured against a standard of 10 miles or greater on days with relative humidity of 70 percent or less. Visibility at nearby March Air Force Base fell below the standard 180 days in 1984, and 170 days in 1982 (1983 data are unavailable).

Furthermore, due to a variety of industrial and agricultural activities and natural processes, particulates are found in the air, and can pose health problems. In 1984, 58 percent of 60 samples tested in Perris, and 75 percent of 59 samples tested at Riverside exceeded the State's particulate standard.

Although Moreno Valley's air quality is greatly shaped by pollutants transported from other portions of the Basin, Moreno Valley has both stationary point sources and mobile sources of emissions within the study area. Point sources include dry cleaning establishments, gas stations and various manufacturing enterprises. Point sources are regulated by the South Coast Air Quality Management District.

Mobile sources include automobiles registered within the study area, as well as automobiles driving to or through the study area on State Route 60, Interstate 215 and other major thoroughfares. At present, mobile source emissions are regulated to some degree at the state and federal levels by emission standards for auto manufacturers and by the State's mandatory bi-annual automobile inspection program.

## 2. ISSUES AND OPPORTUNITIES

The air quality problems within the Moreno Valley study area derive mainly from emissions generated within the more westerly portion of the South Coast Air Basin, as opposed to locally generated emissions. As noted earlier, the prevailing winds in the Basin carry pollutants generated in the densely urbanized coastal areas as far east as Moreno Valley within a period of a few hours. Inversions sometimes exacerbate this pollutant transport by trapping the pollutants over Moreno Valley for several days, preventing natural dispersal in the atmosphere. Without this influx of pollution from the western part of the air basin, Moreno Valley's own emissions would usually be dispersed easily, and create minimal problems.

Future development within the study area will create significant local air pollutant emissions from three sources: construction, mobile, and stationary. Construction impacts are temporary, and include fugitive dust and gaseous emissions resulting from the disturbance of soils from clearing and grading activities, as well as combustion of fuels from heavy equipment. Upon completion of various developments, significant increases of automobile and truck traffic will occur with associated increases in air pollutant emissions. The third source of pollutant emissions are stationary sources, primarily resulting from industrial processes. Additionally, energy demands for new development within the study area will be met by the combustion of fossil fuels. This combustion will create emissions both within the Moreno Valley study area, as well as at distant power plants.

#### a. CONSTRUCTION EMISSIONS

The U.S. Environmental Protection Agency estimates that clearing, grading, and travel on unpaved roads will generate about 1.2 tons of fugitive dust per acre of disturbed soil for each month of activity. This rate can generally be reduced by approximately 50 percent through the use of control measures currently required by the South Coast Air Quality Management District, such as regular watering. Beside frequent watering, other potential fugitive dust reduction measures include soil compaction; early paving, sealing, or oiling of access routes; and enforcement of maximum speed limits within unpaved portions of construction areas.

Fugitive dust will generally settle out on nearby horizontal surfaces such as foliage, vehicles, and buildings, with associated soiling of surfaces. Smaller dust particles will be carried by the prevailing winds to more distant locations. Fugitive dust particles are usually inert silicates, and are large enough to be filtered by human breathing passages. Such dust may contribute to the degradation of visibility in the area, but typically will not have adverse health effects as would the very small, complex organic aerosols of urban air pollution.



In addition to fugitive dust generation, operation of heavy-duty equipment and mobile sources such as dirt hauling and cement trucks will add to local air emissions. Because of the large variety of equipment and day-to-day variations in activity levels and equipment, it is difficult to quantify these emissions.

The impacts of construction activities are temporary, and are primarily a nuisance factor. While construction activities may generate significant quantities of air pollutants over time, their impact will not be discernible above the impacts created by other sources.

#### b. MOBILE SOURCE EMISSIONS

The most significant local air quality impacts will result from the overall regional impact of additional vehicle miles traveled (VMT) that will ultimately be generated by new developments within the study area, as well as from increases in regional traffic along State Route 60 and Interstate 215. Compared to the hundreds of millions of VMT already traveled in the South Coast Air Basin, the effect of Moreno Valley study area growth will be minimal. However, on a local scale, the concentration, and the increased population exposure could create significant microscale air quality impacts.

While motor vehicle emissions will constitute the major contributor to degradation of the air quality within the study area, of the composite pollutants generated by motor vehicles, carbon monoxide will be the worst offender at projected rates of .36 ounces per vehicle mile traveled.

#### c. STATIONARY SOURCE EMISSIONS

The final local source of pollutant emissions which will affect the study area derives from the consumption of electricity and natural gas from residential, as well as industrial sources. Compared to mobile source emissions and the regional

emissions inventory, local impacts will be minimal. It should also be noted that much of the stationary source emissions will be generated at distant power plants.

Industrial processes will also create stationary source pollutant emissions. The type and quantities of these emissions are highly variable depending on the specific industrial process, materials employed, and production level. The Environmental Protection Agency has generated estimates of air pollutant emissions for numerous industrial processes; however, it is not possible to estimate future industrial air pollutant emissions for the Moreno Valley study area except on a case by case basis.

The SCAQMD presently enforces a rule that ties permits for new emission-generating businesses and industries to the amount of emissions that have been reduced by existing sources within a given area. Emission offsets are given at a higher rate if they are re-used within a five-mile radius. This has the effect of keeping emissions in the existing densely urbanized western portion of the Basin, where new or expanding businesses can find sufficient emission offset credits ready to be used.

The South Coast Air Quality Management District has recently proposed an amendment to their regulations, designed to eliminate the distance penalty which has effectively encouraged industrial growth in the western portion of the District at the expense of growth in the eastern portion. The distance penalty became an unanticipated implication of requiring more stringent emission standards upon industrial expansion and relocation into areas from 5 to over 25 miles from existing stationary emission sources. Such emission standards are devised by calculating the air contaminant offsets required for new or expanded stationary emission sources, to increase proportionately with the physical emission sources. The new SCAQMD proposal recognizes that this distance penalty may be inappropriate, and that ozone air quality may be improved in the South Coast Air Basin if some emissions were shifted from west to east, thus eliminating any advantage of industrial location with regards to amount of emission offsets required.

A second provision in the SCAQMD proposal could allow the District to permit the use of decreases in reactive organic gas (ROG) emissions to offset increases in oxides of nitrogen (NOx) emissions in other areas. By using ROG offsets in the western portion of the Basin, new facilities emitting NOx in the eastern portion of the South Coast Air Basin can be permitted.

This proposal is predicated on scientific data and modeling that suggest that ozone and NOx are delicately balanced in the atmosphere. The data indicates that reductions in NOx that are disproportionate to reductions in ozone may actually worsen air quality. Therefore, industries that might emit controlled amounts of NOx in the Moreno Valley area (which would not violate standards) may achieve a dual goal of economic growth and management of Basin-wide air quality at the cost of some local air quality degradation.

The air quality impacts of the SCAQMD proposal are difficult to evaluate because future location of industries requiring emission offsets is unknown. It is likely, however, that the proposal could cause a shift eastward in emissions. Such a shift would occur from the acquisition of surplus emission offsets, from other existing facilities, or from the physical relocation of a facility. This may provide plant location incentives that coincide with Moreno Valley's plans for job-rich industrial and commercial growth associated with this easterly shift. SCAQMD has incorporated the most likely air quality scenario through computer modeling and found that the proposal's most significant impact will be to affect ozone levels.

Ozone air quality impacts could exceed the SCAQMD guidelines of one part per hundred million (pphm) in the eastern portion of the Basin. Modeling indicates that shifting NOx emissions eastward could lead to a maximum increase of 1.2 pphm of ozone. This exceeds the 1 pphm threshold that the SCAQMD uses to determine a significant adverse air quality impact. Table III-P briefly describes the possible impacts upon the western and eastern portions of the south coast basin.

This could have a direct adverse impact on the health of those who live in the far eastern portion of the South Coast Air Basin, including the Moreno Valley study area. Ozone not only impairs normal lung function, but also aggravates respiratory problems. Those most sensitive to ozone include the very young, the very old, and those with respiratory problems.

Moreno Valley's General Plan can be used as a general guideline to assist the City in coping with the ozone pollution, and to minimize increases in emissions of all key pollutants that might otherwise occur due to urban expansion. For example, the General Plan can be referenced when considering freeway and industrial proximity when siting schools, hospitals, and other sensitive receptors. These uses are incompatible, and can be kept separated by regulations that insure good access but a sufficient distance from main emission sources.

The City can also consider methods of minimizing the number and length of trips occurring within the city by encouraging balanced employment and housing growth, which would reduce emissions from long commutes to other parts of the Basin. This will require recruitment of business and industry that are job-rich. Appropriate pollution controls, and mitigation measures such as trip reduction incentives should be enforced to keep local emission growth to a minimum. Alternatively, the City should evaluate the air quality impact of becoming a regional job or shopping destination that would generate more trips and emissions. Employers could be required to minimize pollution-generating trips through incentive programs aimed at employees, for example. These may include preferential parking for carpools, corporate commuter vans and bus pass subsidies.



Table III-P

## ESTIMATED IMPACTS OF THE NEW EMISSIONS OFFSET RULE

REGION		
Air Pollutant	Western Basin	Eastern Basin
Ozone	Small decrease in concentrations and violations	Moderate increase in concentrations leading to violations
NO <sub>2</sub>	Small decrease in concentrations and violations	Small increase in concentrations without causing violations
SO <sub>2</sub>	Small decrease in concentrations	Small increase in concentrations
Sulfate	Small decrease in concentrations and violations	Small increase in concentration
CO	Very small decrease in concentrations	Very small increase in concentrations without causing violations
PM <sub>10</sub>	Small decrease in concentrations and violations	Unknown
Acid Deposition	Small decrease in concentrations	Small increase in concentrations
Acid Fog	Small decrease in concentrations	Small increase in concentrations
Visibility	Small increase in visibility	Unknown

Source: South Coast Air Quality Management District, Proposed District Rule 1307(a) Revision, July, 1986, with additions by PLANNING NETWORK.





## G. CRIME PREVENTION SERVICES

### 1. EXISTING SETTING

Police protection and crime prevention services for the incorporated portion of the Moreno Valley study area are provided by the Riverside County Sheriff's Department in accordance with an annual contract. The Sheriff's Department provides services under the name of Moreno Valley Police Department, and all squad cars bear the City's seal and name. The Sheriff's Department also patrols the unincorporated areas within the study area at a basic level of County service.

Protection and prevention services provided to the City of Moreno Valley include:

- Law enforcement and investigations
- Traffic enforcement and investigations
- Emergency service teams
- K-9 units (including narcotics searching dogs)
- Major investigative units
- Routine support services, such as communications, evidence collection and preservation, training, administration, record keeping, and follow-up investigation.
- Crime prevention programs.
- Several of these specialized functions are available, as needed, from the Sheriff's Department office in Riverside. These include K-9 units and major investigative units for criminal intelligence, narcotics investigation, and organized crime investigation.

Currently, 53 sworn officers provide field services in the City. The officer to population ratio, a measure of the police department's efficiency, stands at 1:1,500; the optimum range would be 1:1,000 to 1:1,300. However, the Police Department

states that the present ratio does not result in citizen complaints, largely because the average response time of five minutes for emergencies, and eight minutes for non-emergencies has been considered satisfactory. In addition, a large number of officers are available from neighboring County Sheriff stations in case of emergency. The Department plans to increase its officer to population ratio to the optimum level within five years as community growth requires more field officers and the necessary funds become available.

The Police Department deploys its officers in four 10-hour shifts to achieve maximum coverage. Table III-Q illustrates average daily deployment. All squad cars are manned by one officer. The City is divided into six beats, which are flexible to meet daily needs.

Table III-Q

### AVERAGE DEPLOYMENT OF POLICE OFFICERS

Shift	Hours	Average # Squad Car
1	7 a.m. - 5 p.m.	5
2	1 p.m. - 11 p.m.	4
3	5 p.m. - 3 a.m.	4
4	10 p.m. - 8 a.m.	3

Source: Moreno Valley Police Department



This schedule is intended to produce several overlaps to provide adequate coverage during busy periods. For example, the overlap among shifts 1, 2 and 3 creates a six-hour period from 5 p.m. until 11 p.m. when up to thirteen squad cars are patrolling the city. The five-hour overlap of shifts 3 and 4 provides up to seven squad cars from 10 p.m. to 3 a.m. Finally, eight squad cars patrol from 7 to 8 a.m. during the overlap between shifts 1 and 4.

Relative to neighboring jurisdictions, Moreno Valley has a moderate crime rate. During its first six months of operation, the Moreno Valley Police Department reported that 6.6 percent of Riverside County's criminal incidents and 4.9 percent of the County's traffic violations occurred within the City. As a general means of comparison, during this period, Moreno Valley comprised approximately 7.5 percent of the County's population. Table III-R summarizes actual incidents for the Police Department's first six months of operation.

Nearly half of all actual criminal incidents occurring within the City during the first six months of Police Department operation were miscellaneous misdemeanors, principally disturbing the peace. Such disturbances accounted for nearly a quarter of total actual incidents.

Burglary was the most frequent felony during this period, accounting for approximately 10 percent of all actual crimes. Petty theft was the second most frequent crime, accounting for approximately 10 percent of all crimes, including narcotic abuse and related crimes.

In general, criminal acts in Moreno Valley are aimed at property, rather than at persons. Only 0.5 percent of all actual incidents were felonies against individuals. The Police Department states that criminal activities have been evenly dispersed across the City.

Table III-R

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**ACTUAL CRIMES OCCURRING FROM JANUARY TO JUNE, 1986**


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	Actual Incidents	% of Total
<u>Total Criminal Activity</u>	5,221	100%
Crimes Against Persons	672	
Felonies	234	13%
(homicide, robbery, rape, assault, sex, other)		
Misdemeanors	438	
(assault, sex)		
Crimes Against Property	1,918	37%
Felonies	980	
(burglary, arson, theft, grand theft auto, checks, malicious mischief, other)		
Misdemeanors	938	
(petty theft, checks, malicious mischief)		
Miscellaneous Crimes	2,631	50%
Felonies	127	
(vice/narcotics, weapons, escape, other)		
Misdemeanors	2,504	
(disturbing the peace, drunk in public, drunk driving, prowling, vice/narcotics, other)		

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Source: Moreno Valley Police Department, 1986.

Crime prevention programs presently consist of neighborhood watch programs coordinated by an officer stationed in Riverside. The Department plans to add a full-time coordinator to its staff in order to expand neighborhood watch and business watch efforts. The crime prevention coordinator would work directly with builders to promote developments that are less susceptible to crime and easier to protect.

Table III-S recaps the City's traffic enforcement record for the Police Department's first six months of operation:

Table III-S

TRAFFIC ACTIVITY FROM JANUARY  
THROUGH JUNE, 1986

	Actual Incidents
<u>Collisions</u>	
Cited	1
Injury	-
Non-injury	1
Not cited	3
Injury	-
Non-injury	3
<u>Citations</u>	
Hazardous violations	561
Non-hazardous violations	917
Parking violations	418
Traffic collisions	1
Warning	6

Source: Moreno Valley Police Department, 1986

Traffic enforcement has been a Police Department responsibility since January, 1986. California Highway Patrol provided surveillance and enforcement prior to 1986. The Department dispatches five officers whose primary daily assignment is traffic enforcement and investigation. However, all squad cars are available to respond to traffic emergencies and violations. Traffic enforcement units are not assigned to specific areas, according to the Police Department, but move where traffic flows demand attention.

## 2. ISSUES AND OPPORTUNITIES

Future development within the Moreno Valley study area will require additional officers to maintain the officer-to-population service ratio at a desirable level. In addition, depending upon the future distribution of development, construction of one or more police substations may be desirable. However, by instituting building standards, design features, and safety equipment requirements that reduce opportunities for crime, the need for additional officers and facilities can be kept to a minimum.

### a. DESIGN MEASURES FOR CRIME PREVENTION

Burglary is the most common serious crime in Moreno Valley. The General Plan can offer methods to discourage burglaries and other crimes through strategic use of design. Since burglary is more often a crime of opportunity rather than a premeditated crime, community design features can often be implemented to reduce crime incidents. This is commonly referred to as the "defensible space" concept. Defensible space permits the identification of suspicious happenings or persons (in part by increasing visibility and recognition by neighbors), and makes it evident to a potential criminal that a crime could be observed and the criminal easily apprehended.

Table III-T summarizes the lighting standards recommended by urban planning professionals to accomplish good lighting that is a key ingredient of defensible space.

In addition to the previous design measures aimed at creating defensible developments, road improvements can be made that may reduce the number of hazardous, non-hazardous, and parking violations that occur within the City. Uniform road widths and signalized intersections can minimize the potential for moving violations. Furthermore, provision of adequate off-street parking in commercial areas and near public facilities can minimize parking violations.



Table III-T

RECOMMENDED LIGHTING LEVELS<sup>1</sup>

Area to be Lit	Commercial Requirement	Industrial Requirement	Residential Requirement
<u>Pedestrian Areas</u>			
1. Sidewalks	0.9	0.6	0.2
2. Pedestrian Ways	2.0	1.0	0.5
<u>Roadways</u>			
1. Freeways	0.6	0.6	0.6
2. Major and Expressways	2.0	1.4	1.0
3. Collectors	1.2	0.9	0.6
4. Local	0.9	0.6	0.4
5. Alleys	0.6	0.4	0.2
<u>Parking</u>			
1. Self Parking	1.0	N/A	N/A
2. Attendant Parking	2.0	N/A	N/A

Source: Urban Planning and Design Criteria

<sup>1</sup>Lighting levels measured in foot-candles.



## H. FIRE HAZARDS AND PREVENTION SERVICES

### 1. EXISTING SETTING

The Riverside County Fire Department provides fire protection services to the Moreno Valley study area. The Riverside County Fire Department is a joint State Department of Forestry and Riverside County agency, which was formed to provide both wildland and structural protection. The City of Moreno Valley receives the basic level of staffing and protection normally provided to unincorporated areas with some development.

Moreno Valley is presently served by five fire stations. Figure 24 identifies the location of stations within the study area, and also illustrates the five minute response radius for these stations. A five-minute response time is considered to be the maximum time standard for serving urban and suburban uses.

Station No. 2 is located on Sunnymead Boulevard, just west of Heacock Street. The station is staffed by two permanent full-time firefighters. A 25-member volunteer squad supplements this staffing, particularly on weekends and holidays when only one paid firefighter is on duty. Station No. 2 is equipped with one 1,000 gallon per minute pumper truck, one 750 gallon per minute pumper truck and one squad unit.

Station No. 6 is situated east of the Cottonwood Avenue and Day Street intersection, and is operated with two paid professional personnel, assisted by 10 volunteers. The station houses a 1,200 gallon per minute pumper truck and a 250-gallon per minute Quick-Attack pumper truck which is also equipped with a "Jaws of Life" rescue apparatus.

Station No. 48 is located at the intersection of Village Road and Sunnymead Ranch Parkway. The station is staffed by two full time firefighters, one on duty at a time, which is the County standard. Engine 48 is a 1000 GPM pumper.







# EXISTING MASTER PLAN OF FIRE SERVICE

## LEGEND



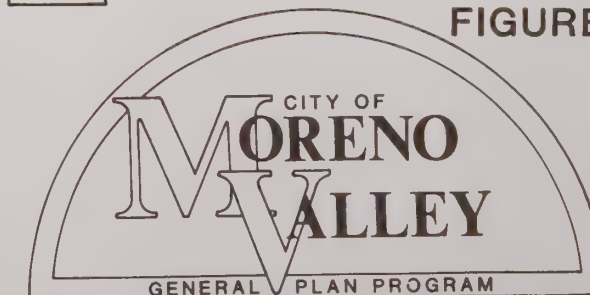
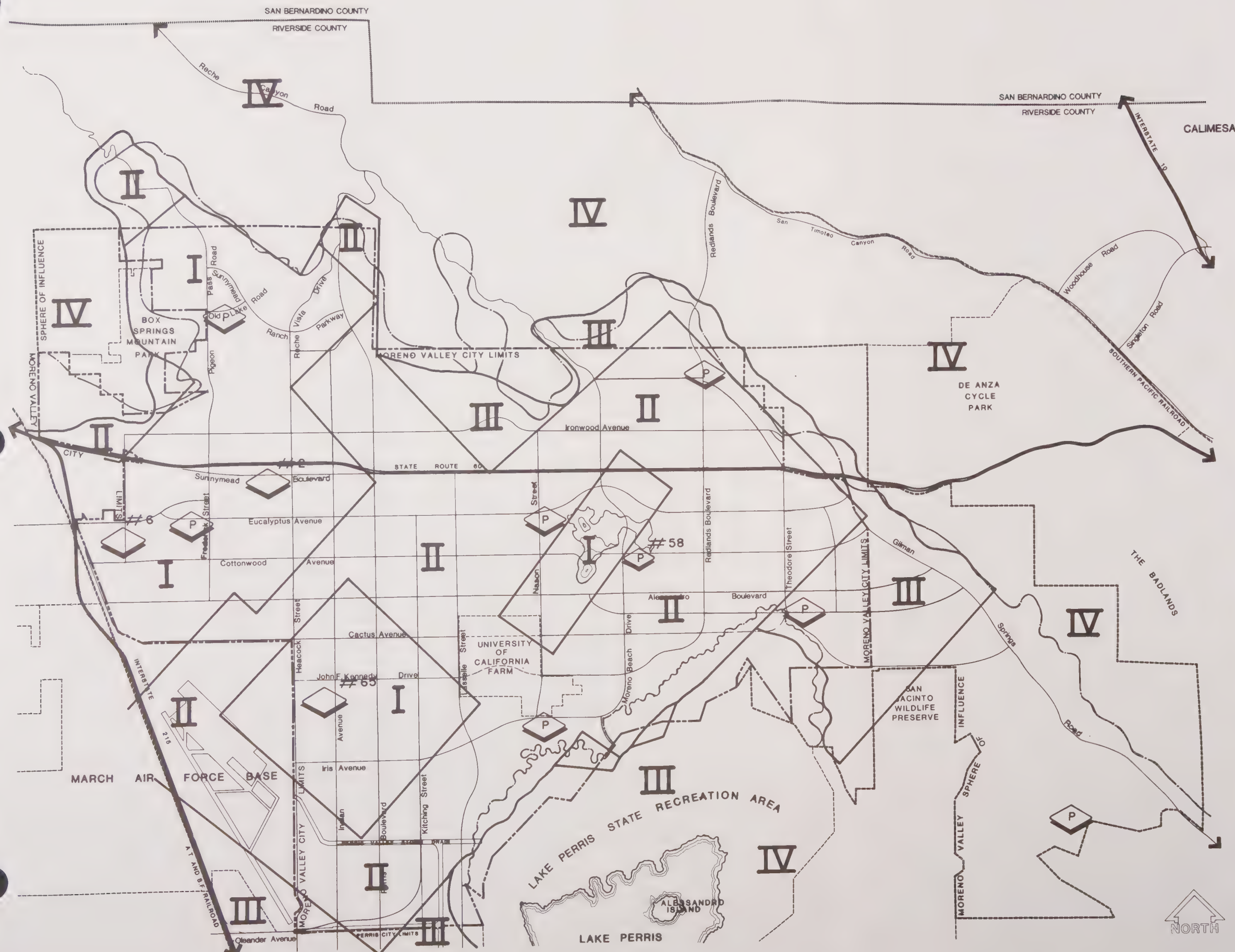
- I** HEAVY URBAN - INCLUDES REGIONAL AND COMMUNITY CENTERS, HEAVY INDUSTRIAL USES AND RESIDENTIAL DENSITIES OF 8 TO 20 DWELLING UNITS PER ACRE.
- II** URBAN - BROAD MIX OF COMMERCIAL AND INDUSTRIAL USES, RESIDENTIAL DENSITIES OF 2 TO 8 DWELLING UNITS PER ACRE.
- III** RURAL - INCLUDES AGRICULTURAL USES, SMALL SCALE COMMERCIAL, 1 ACRE TO 5 ACRE RESIDENTIAL PARCELS AND INDUSTRIAL USES SUCH AS MANUFACTURING.
- IV** OUTLYING - AGRICULTURE, MINING, INDUSTRY AND LARGE LOT RESIDENTIAL LOCATED NEAR LARGE LOTS OF PUBLICLY OWNED LAND.
-  FIRE STATION
-  PROPOSED FIRE STATION

FIGURE 24



PLANNING NETWORK DATE: Nov. 15, 1987 REV: Dec. 10, 1987 REV: Sept. 20, 1988  
SCALE: 0 1000 2000 4000 6000 8000

Source: Riverside County







Station No. 58 is a temporary station serving eastern Moreno Valley. Located at Moreno Beach Drive and Bay Street, this metal building houses one 750 gallon per minute pumper truck, one squad unit and is staffed by five volunteer fire-fighters.

Station No. 65 was added in June 1986 to protect the portion of the City south of Alessandro Boulevard. Located at John F. Kennedy Drive and Indian Avenue, this station houses four paid firefighters at all times, including a Hazardous Materials Unit, Breathing Support Unit, assisted by 12 volunteer firefighters. One 1,000 gallon per minute pumper truck operates from station No. 65.

As noted above, 52 volunteers are available to supplement limited professional fire-fighter positions. The Insurance Service Office (ISO) considers three "paid-call" volunteers to equal the service of one paid professional firefighter. All Moreno Valley volunteers are "paid-call" firefighters, that is, the County Fire Department pays them on an hourly basis for the actual firefighting services they perform. This system achieves better volunteer participation than does an unpaid volunteer program; however, volunteers are not paid for time devoted to training and public service activities.

In addition to staffing and equipment, fire flow and water supply capabilities are key factors in providing adequate service. The Riverside County Fire Departments' 1986 Fire Protection Plan for the City of Moreno Valley, assessed current flows and water supplies for the areas covered by each station.

Station No. 2 requires an average fire flow of 500-2,000 gallons per minute for structures within its service area. The Fire Protection Plan notes that many new apartment complexes and shopping centers, as well as other projects require flows in excess of 2,000 gallons per minute. The present staff and equipment can pump 1,750 gallons per minute. In addition, all of the paid and volunteer firefighters working together can provide hose-stream capability of 950 gallons per minute.

Water supply to fight fires is a greater constraint in the Sunnymead area where three water purveyors serve this area, supplying a range of average fire flows from 882 gallons per minute, to 1,476 gallons per minute, to 2,000 gallons per minute. While one water company falls short of the average required flows, the others exceed the 500 gallons per minute required to protect single-family residences with a five-foot side-yard setback.

Station No. 6's area of responsibility requires fire flows of 500-3,000 gallons per minute. This requirement is met by 950 gallons per minute of hose stream handling capacity, plus 1,450 gallons per minute pumping capacity from all equipment. However, water supply and pressure to sustain these flows is limited. Two water companies supplying portions of the area can meet 60 percent of the minimum 500 gallon per minute flow for residences.

Station 48 has a fire flow requirement that ranges from 500 to 2,000 GPM.

Station No. 58 has an average required flow of 500-1,750 gallons per minute. As no paid personnel are assigned to the eastern portion of the study area, volunteers provide 250 gallons per minute of hose stream capacity, while available equipment pumps 750 gallons per minute. Water systems in the eastern portion of the city are small and isolated, and have an estimated water supply capacity much lower than the minimum 500 gallons per minute for residences.

Station 65 has a fireflow requirement that ranges from 500-5,000 GPM.

Fire Department response times vary according to the area of the City. The Fire Department defines response zones in terms of land use, as defined in Table III-U.

The Fire Department anticipates continued conversion of outlying and rural areas to more intense urban and rural uses requiring a higher level of fire protection services.

Currently, the Department aims to reach a site and begin extinguishing the fire within 7 to 10 minutes in the heavy urban and urban zones that cover most of the city and study area. Table III-V details the level of response for each land use category.

Table III-U

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## FIRE RESPONSE ZONES

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### CATEGORY #1 - HEAVY URBAN

Land uses include regional and community commercial centers, heavy industrial uses and residential densities of eight to twenty dwelling units per acre.

### CATEGORY #2 - URBAN

Land use represents a broad mix of uses, including many types of commercial and industrial land uses, and residential land uses with a density of two to eight dwelling units per acre. (The Department's proposed Implementation Plan is based on this land use category.)

### CATEGORY #3 - RURAL

Land uses may include a variety of different uses including agriculture, small scale commercial, and residential densities of one dwelling unit per acre to one dwelling unit per five acres.

### CATEGORY #4 - OUTLYING

Land uses generally located near large tracts of publicly-owned land often contain agriculture, mining, industry, or residential uses at a density of one dwelling unit per five acres or greater.

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Source: Riverside County Fire Department

Table III-V

## FIRE SERVICE LEVELS OF RESPONSE OBJECTIVES

Objective	LAND USE CATEGORIES			
	Outlying	Rural	Urban	Heavy Urban
Extinguishing agent applied to structure and vegetation fire within listed minutes from dispatch [1]	20	14	10	7 Ind./Comm. 8 Res.
Full assignment in operation within listed minutes from dispatch [2]	30	20	15	10
Suppression initiated within listed minutes of receipt of alarm for at least 80% of all fires	15	10	8	Prior to flashover
Fire Station location within listed miles	8	5	3	1-1/2
[1] These times allow for a 4-minute set up time. This includes laying hose, size up direction to crew, putting on safety clothing and establishing proper pump pressures.				
[2] Full assignment (initial dispatch) for a building fire is 3 fire engines, 1 squad and 1 battalion chief. If a truck company is available, then 2 instead of 3 fire engines would be dispatched.				

Souce: Riverside County Fire Department

The Fire Department has also proposed a total of eight new fire stations to improve response. These new stations would reduce response times by creating smaller service areas. Figure 24 indicates these proposed sites in relation to existing stations. Two of these eight stations would replace existing stations to achieve optimal station spacing.

Thus, throughout the city, hose stream and pumping capability is strained to keep up with the basic level of service required to meet average flow requirements. However, water supplies and water pressure are adequate to meet an extended crisis situation in 90 percent of the study area. If a



wildfire or a large structural fire occurs within the Eastern Municipal Water District's (EMWD) service area, water supplies are sufficient to handle an extended emergency. EMWD stores water in several million gallon tanks throughout the study area, to ensure continued water pressure and supplies in an emergency.

The remainder of the City is served by small water companies: Edgemont Gardens and Sunnymead Mutual Water Company among others. None of these smaller water purveyors have the storage capacity to meet large-scale emergency needs. To ease this potential water shortage, each company has an emergency tie to EMWD's water resources. However, the main water lines operated by these companies are relatively small, and are a limitation on the flows available to fight an extended incident. This in turn requires that structures be limited in size to the level that the water delivery system can handle in an emergency. For example, Sunnymead Boulevard, between Indian and Heacock, does not receive adequate fire flows to suppress a major commercial structural fire.

As a result of the previously mentioned fire protection levels and water supply capacities, the City receives a fire insurance rating of "6" for areas with paved streets and domestic water systems with approved fire hydrant spacing. Unimproved areas are generally assigned a rating of "9", considered a high fire hazard risk. Portions of the area, including the Box Springs Mountains area, the Reche Canyon area, the Badlands area, and the area north of Manzanita Avenue, between Perris Boulevard and Pigeon Pass Road have also been designated Riverside County Hazardous Fire Areas, due to their combination of 25 percent or greater slope and vegetative cover. High winds and dry conditions characteristic of the Moreno Valley area make this area particularly vulnerable during summer and autumn.

Fire protection plan checks and reviews for new buildings are provided by two Riverside County Fire Department employees, who are responsible for the Moreno Valley study area as well as other portions of western Riverside County.

## 2. ISSUES AND OPPORTUNITIES

As development within the study area occurs, significantly greater demands will be placed upon the City's fire prevention and suppression services. The Riverside County Fire Department's work load has grown with the increase in urban development. It responded to 2,733 incidents in 1985, up from 2,245 in 1984. The Department has been structured primarily as a rural fire agency. Fire stations have not necessarily been sited to provide urban-level response times, and staffing depends largely on volunteers. Existing facilities, equipment, and staffing provide only basic levels of protection to the current population, and will not be adequate to support significant future urbanization of the valley. Water flows are already strained in several areas that are continuing to urbanize.

The County Fire Department's Moreno Valley Fire Protection Plan is under consideration by City officials. The plan addresses fire protection demand through the year 2010. The plan proposes the construction of eight new stations including a replacement station for the current temporary facility in the eastern area of the city. In addition, 59 paid staff, ranging from a Battalion Chief to firefighters are recommended. Six new fire engines and one aerial truck are also proposed to meet future demand. These new facilities would form a grid of protection across the City, resulting in an average six minute response time throughout Moreno Valley.

Figure 24 illustrates the eight new sites proposed in the Fire Plan, spaced at three mile intervals.

The Fire Protection Plan would reduce dependence on volunteer firefighters. Volunteer resources are presently stretched beyond reasonable capacity, and cannot provide adequate levels of service into the future. Volunteer recruitment has become increasingly difficult in Moreno Valley and throughout Riverside County due to a combination of increasing fire-related incidents and employment and housing patterns that have encouraged long distance commutes.

Provision of adequate water flows to existing and future stations will continue to be a challenge for the City and the water companies that serve it. Improving flows to the areas served by Edgemont Gardens, and Sunnymead Mutual Water Companies may require new larger water lines. A benefit assessment district or redevelopment funding could possibly be used to raise funds for the replacement.

The City can also reduce response times and reduce the potential for fire through the standards it sets for construction materials and building design, as well as the siting of stations and layout of new streets. Early cooperation between builders and the Fire Department can promote good access to residential, commercial, and industrial projects for fire suppression purposes. City officials can work with property owners to secure appropriate station sites before development absorbs optimal locations.

The City could elect to require fire sprinklers for new residential, commercial and industrial buildings. If implemented, such a requirement, according to the County Fire Department would: reduce the amount of expenditure necessary for the future expansion of facilities and manpower, reduce minimum fire flow requirements and in turn the number of firefighters required at the site while increasing the effectiveness of response time. The substantial funds which the City would save over a long period of time will need to be balanced against the one-time expenditure for sprinkler installation in buildings. This does not address the need for medical aid services.

Presently, none of the fire stations serving the City houses an aerial truck company with apparatus to provide an elevated fire stream and rescue capability for structures of three to six stories in height. Ground ladders on existing engines extend to 35 feet for access to two story buildings. If commercial development within the City intensifies in the future, and multiple story buildings are proposed, it will be necessary to obtain an aerial ladder truck.

Currently, the City administration is investigating the possibility of implementing a full service City Fire Department. Although the City would benefit from such a service, it has not yet been determined as a feasible alternative to contract County fire protection.





## I. HAZARDOUS MATERIALS

A hazardous material can be defined as any injurious substance, including pesticides, herbicides, toxic metals and chemicals, explosives, volatile chemicals, and nuclear fuels and materials. The use of hazardous materials is widespread today in industrial and agricultural activities. It is essential that regulations controlling the transport, use, storage, and disposal of hazardous materials be enforced to provide the greatest possible protection to the public from accidental occurrences.

Hazardous materials can be classified into four general categories: toxins, irritants, flammables, and explosives. Toxins include a wide range of industrial chemicals and agricultural pesticides which are capable of producing serious illness or death due to poisoning. Irritants can cause inflammation or destruction of living tissue with effects ranging from mild to severe, based on the degree of exposure and the type of material involved. Flammables are dangerous because of their low ignition temperatures and rapid burning characteristics. Some flammables burn so violently that they cannot be extinguished, and must be allowed to burn out naturally. Explosives can produce rapid chemical reactions causing damage due to blast and flash fire. Because of their widespread use, it can be assumed that each type of hazardous material is either transported through, used, or stored to some degree within the study area.

### 1. EXISTING SETTING

#### a. TRANSPORT OF HAZARDOUS MATERIALS

The shipment of hazardous materials by truck or rail is regulated by the U.S. Department of Transportation through National Safety Standards. The federal safety standards are also included in the California Administrative Code, Environmental Health Division. The California Health Services Department regulates hazardous waste haulers only.

The California Highway Patrol (CHP) is responsible for the general enforcement of motor carriers hauling hazardous wastes. There are three basic methods of enforcement. Truck scales are located on Interstate 10 at Banning, Interstate 15 at Cajon Pass, and on State Route 91 at Riverside. The scale masters at these locations issue "compliance ratings", which monitor maintenance, vehicle code, safety, and cargo compliance with federal, state, and local laws.

In addition to inspections at scales, the CHP's Motor Carrier Safety Unit conducts inspections at "terminals", which are generally areas or yards where trucks are parked and/or operated from (including school bus terminals, truck yards, etc.).

Finally, the CHP maintains "Mobile Road Enforcement." Under this program, one official and one officer patrol roadways with the authority to set up lane inspections on city and county roadways, as well as on state highways.

Movement of trucks within the Moreno Valley city limits may be regulated by the City, and by the County of Riverside in the adjacent unincorporated areas. Also, a variety of hazardous materials are routinely handled by the A.T. & S.F. Railroad and are state regulated.

b. STORAGE AND USE OF HAZARDOUS MATERIALS

Storage and use of hazardous materials within the study area is generally limited to March Air Force Base, Riverside International Raceway, agricultural areas, and industrial areas. Regulations and enforcement of safety measures for the storage and use of hazardous materials is the responsibility of numerous agencies, including local fire agencies. National, state, and local fire codes act as a guideline for local enforcement.

The Environmental Protection Agency (EPA) ensures that containers of hazardous materials are properly labeled with instructions for use. The California Department of Industrial Relations, Cal-OSHA Division regulates the proper use of hazardous materials. The U. S. Department of Agriculture and California Department of Food and Agriculture and the Department of Industrial Relations regulate pest control operations, pesticide dealers, and pesticide users to insure that hazardous agricultural chemicals are properly used.

#### c. DISPOSAL OF HAZARDOUS WASTES

Presently, there are no active landfills operating in Riverside County which would accept hazardous wastes. Hazardous wastes generated within the County which are disposed offsite are transported to distant Kern or Santa Barbara Counties, which contain active "Class I" landfills.

#### d. RESPONSE TO EMERGENCIES

In January 1982, the Environmental Health Division of the Riverside County Health Department began developing a local hazardous materials program. Under this program, the Health Department currently performs specific tasks which include educating persons involved with hazardous wastes; inspecting those involved in generating, hauling, storage, treatment, and disposal of these wastes to determine compliance with State laws and regulations; performing investigations to detect illegal disposal sites; and investigating complaints and violations of State laws and regulations. According to the County Health Department, the county has removed and disposed of any known hazardous material that may have been dumped, discarded, or abandoned in the Moreno Valley study area, thereby removing any potential threat to the environment from known illegal or unlawful disposal of hazardous waste material.

The County has also developed a hazardous materials emergency response plan which identifies proper procedures to be used in the event of a hazardous materials accident. Primary responsibility for the preparation and implementation of the plan has been given to the following agencies, who serve as the primary response team in coordination with local fire and police agencies, in the event of a hazardous materials emergency:

- County Health Department, Environmental Services Division
- Riverside County Fire Department
- Riverside County Office of Disaster Preparedness
- Riverside County Sheriff's Department
- California Highway Patrol

In addition, the first Riverside County hazardous material response unit was recently established, and stationed in Moreno Valley. Located at the Kennedy Park Fire Station, the unit is capable of containing and identifying hazardous material accidents. The unit consists of a 24-hour, five to six person team of County fire and health specialists and a hazardous material vehicle equipped with an onboard computer, several specialized instruments, protection suits, and chemicals for hazardous material analysis. The unit, however, does not normally clean up hazardous materials.

The responsibility for hazardous material cleanup has been contracted, by the County, to a private environmental management firm, specializing in assessment, mitigation, decontamination, and disposal of hazardous materials. The firm's emergency response teams are available 24 hours a day, and are capable of supplying several emergency response trailers and vans, decontamination units, mobile pumps, vacuum trucks, marine skimmers, and emergency aircraft.



## 2. ISSUES AND OPPORTUNITIES

Since the hauling of hazardous materials is regulated by the State and Federal governments, local agencies such as the City of Moreno Valley are pre-empted from developing local regulations for the transport of hazardous materials. For example, the City could not exempt particular state highways or railways from transport of hazardous materials, since the State has jurisdiction over state highways and railways. Therefore, Moreno Valley faces the same risk as any other community situated along a state highway.

Local agencies may, however, regulate the transport of hazardous materials by designating truck routes and by achieving a land use pattern which discourages industrial access through or adjacent to residential areas. No significant hazards can be identified within Moreno Valley at the present; however, such planning methods could minimize significant hazards in the future.

In addition to hauling, the storage and use of hazardous materials within a city's industrial areas can be expected. The storage and use of hazardous materials is a normal part of some industrial operations, and may not be prevented without losing the industry. Currently, industries which locate within the City of Moreno Valley are required by the City Fire Department to have hazardous material data information sheets on the premises. Each data information sheet contains information on a specific hazardous material being stored on the premises, listing the type, quantity, and specific location on the premises. The data sheets also contain manufacturer information on the toxicity, flammability, and necessary protective equipment required in case of accident. While this measure is not intended to reduce or limit the storage or use of hazardous materials, it does greatly assist the Fire Department in responding to



emergencies, increasing overall levels of safety within Moreno Valley's industrial areas. In addition, certain measures can and should be taken to reduce risks related to fires and accidental spills. These measures include encouragement of "clean" industries and assembly operations rather than heavy industries or industries where large amounts of hazardous materials are known to be utilized.

## J. EMERGENCY SERVICES

### 1. EXISTING SETTING

Emergency services are provided to the Moreno Valley study area by both public and private sector organizations. Medical emergencies requiring paramedic assistance and/or ambulance transportation are handled by the Goodhew Ambulance Company. Goodhew operates one ambulance staffed with two paramedics from its station located at Perris and Atwood Streets. According to the company, a back-up ambulance is dispatched to Moreno Valley from either their Riverside or Sun City station as soon as the Moreno Valley ambulance leaves its station on a call. Ambulances convey patients to various hospitals in the City of Riverside.

Goodhew Ambulance Company bases the location and number of ambulances in Moreno Valley upon the average number of calls received. In general, seven calls per day warrants an ambulance in a given geographic area. The Moreno Valley study area is presently averaging nine calls per day, which is low relative to the size of the population. Goodhew attributes this rate of demand to the City's young population. Nevertheless, the company is exploring the possibility of locating a second ambulance unit within the City, as nine calls per day requires nearly all of the current ambulance unit's time, and continual substitutions are logistically difficult.

All paramedic and ambulance services are charged to the user. However, emergency services provided by Goodhew may be summoned by calling 911, which is operated by the Riverside County Fire Department. This interface allows the fire department to provide first response to an accident or medical emergency, depending on the victim's location. Typically, paid-call firefighters reach the scene first, providing first aid and emergency aid until the private ambulance arrives.

Most of the City's paid call firefighters are trained as an Emergency Medical Technician I; the remainder are trained in advanced first aid. This reciprocal assistance between public and private agencies may be curtailed, however, due to the prohibitive cost of liability insurance for the County's firefighters. The Fire Department's Emergency Services Division coordinates all major emergency response efforts affecting the Moreno Valley study area.

The County Fire Department also provides special tools for emergency rescue operations. A "jaws of life" apparatus is currently housed at Fire Station No. 6. A specially built and equipped "HAZMAT," hazardous materials, van is operated by the County Fire Department from Station No. 65 to respond to hazardous material spills, accidents, or contamination. Four to five personnel accompany the van to a call, depending on the situation. The County Department of Health Services provides advice and technical assistance to the Fire Department on the best course of action in an emergency. In addition to the above, each volunteer fire company within the city buys and maintains its own special rescue tools such as drills, ladders and saws.

The County Fire Department's Emergency Services Division provides earthquake preparedness planning, natural disaster and emergency programs, and emergency communications throughout the County. The Division also provides damage assessments of all disasters affecting businesses and residences in Moreno Valley. The Division is in the process of updating the existing County Disaster Preparedness Plan.

The American Red Cross provides a wide range of emergency response support services, ranging from a single residential fire to a communitywide disaster. This non-profit organization has a disaster action team coordinator assigned to the study area, who will respond to any residential fire or other emergency within an hour of notification to estimate the damage and the need for further relief services. The American Red Cross works closely with the Riverside County Fire Department and the school districts to provide damage assessment, shelter for families left homeless by a disaster or emergency,

and referral services to affected households that need further assistance from state and federal agencies or the American Red Cross. Red Cross personnel also assist with evacuations, and in identifying missing persons and reuniting displaced families. The organization operates its own radio system for emergency communications. The American Red Cross, Riverside County Chapter, is headquartered in the City of Riverside.

Finally, the City of Moreno Valley is now in the process of formulating its own disaster plan as required by state law.

## 2. ISSUES AND OPPORTUNITIES

Moreno Valley is presently using its single available private ambulance to full capacity. In expanding services, the City has an opportunity to consolidate ambulance stations with fire stations within the study area. Such joint arrangements have been established successfully elsewhere in the County. By locating ambulances within fire stations, the City may be able to optimize response times as the private ambulance operator may not have access to equally advantageous business locations. This could effectively reduce the need for the County Fire Department to provide first response.

If the prohibitive cost of liability insurance curtails the use of paidcall firefighters in providing first response to medical emergencies and accidents within the study area, the City will have the opportunity to consider providing its own paramedic services or contracting with a private firm such as Goodhew Ambulance Company.

The general plan must also address the City's need for hospital facilities to link with local paramedic services. At present, the nearest hospitals are located in the City of Riverside, and include Riverside Community Hospital and Riverside General Hospital. Both of these hospitals are considered Level 2 trauma centers, meaning that they have a "CAT" scan technician on call 24 hours daily. The nearest Level 1 trauma center is Loma Linda University Medical Center, which has a CAT scan technician at the hospital at all times. Having

a local emergency and/or trauma center hospital in Moreno Valley would reduce emergency response transportation from twenty minutes to about half that time.

The City also has the opportunity to provide disaster preparedness plans tailored to its specific needs. Since the City's general plan and disaster preparedness plans are being prepared simultaneously, the City has a unique chance to identify disaster-prone areas that may be unsuitable for some types of development.



## K. AIRCRAFT CRASH HAZARDS

### 1. EXISTING SETTING

Although located at the western margin of the study area, flight operations at March Air Force Base present a potential, albeit minor, for crashes. MAFB officials have mapped varying potentials for crashes into five categories:

- Areas on or adjacent to the runway;
- Areas within the clear zone;
- "Accident Potential Zone (APZ) I";
- "Accident Potential Zone (APZ) II"; and
- All other lands within a 10 nautical mile radius of the runway.

Accident potential on or adjacent to the runway, or within the clear zone is considered to be such that few uses are acceptable, while areas outside APZ I and APZ II, but within the ten nautical mile radius area are not considered by MAFB officials to be significant enough to warrant special attention. All areas on or adjacent to the runway or within the clear zone, are within the boundaries of March Air Force Base. A portion of land along I-215 south of Alessandro Boulevard is within APZ I, while a narrow strip north of Alessandro along I-215 is within APZ II.

### 2. ISSUES AND OPPORTUNITIES

Although research relative to aircraft accident potential and land use compatibility is still in progress, it is possible to establish guidelines which can be incorporated into land use planning efforts to reduce potential hazards. Land use guidelines for the two APZ's have been developed by MAFB based on an index which considers a number of factors including proximity to defined zones around runway areas, type of use, intensity of use, and nature of use.

The Air Installation Compatible Use Zone (AICUZ) Report prepared by MAFB has developed guidelines for land use within the APZ's. The main objective has been to restrict people-intensive uses because there is a greater risk in these areas. The basic criteria for APZ I and APZ II land use guidelines is the prevention of uses which:

- have high residential density characteristics;
- are labor intensive;
- promote concentrations or extended duration of concentration of people, in particular, of people who are unable to respond to emergency situations such as children, elderly, handicapped;
- involve utilities and services required for areawide population to which disruption would have a significant adverse impact (e.g. electrical substations, telephone switching stations, etc.); or
- pose hazards to aircraft operations.

## **L. PUBLIC HEALTH AND SAFETY OBJECTIVES AND POLICIES**

### **Objective 6.0**

Eliminate the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic groundshaking and secondary effects.

#### **Policy Statements:**

- 6.1 Geologic and seismic hazards (as they relate to occurrence of maximum creditable earthquake magnitudes) shall be controlled to a level of acceptable risk through the identification and recognition of potentially hazardous conditions and areas as they relate to those portions of the San Jacinto and Casa Loma fault zones lying within the study area. Within the study area, ground shaking shall be considered the greatest potential risk, and shall be thoroughly evaluated on the basis of existing soil types, slope stability, proximity to fault lines and expected magnitudes.
- 6.2 The City shall require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards and such other supplemental design criteria as is necessary to insure:
  - a. That all critical and essential land use structures as previously defined, are designed to withstand sufficient "g" force to remain functional and operative after the occurrence of an earthquake of maximum credible magnitude, and

b. The mitigation of the potential structure collapse of all buildings within the study area, as the result of the occurrence of an equivalent earthquake of magnitude 6.5 and recurrence level of 100-200 years along the San Jacinto Fault.

6.3 Any determination by the City regarding the suitability of essential or critical land use types as defined, shall be based upon strong considerations for community safety and disaster recovery.

6.4 The City shall facilitate and encourage the efforts of the State and local entities responsible for regular maintenance in operating of Perris and Pigeon Pass Dams for the purpose of reducing the risk of seismic failure, and to ensure that water levels are kept at or below the designed safe water levels, thereby reducing the risk of overtopping.

#### **Objective 7.0**

Eliminate the potential for loss of life, protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.

#### **Policy Statements:**

7.1 The City shall ensure that no structure designed for human occupancy is constructed within the 100 year floodplain without being raised at a minimum, one foot above the floodplain and provided with all-weather access.

7.2 The City shall require, as a prerequisite to approval of a development application within the 100 year floodplain, that information be submitted by a qualified civil or hydrological engineer certifying the 100 year level.

- 7.3 Where possible, the City shall require abatement or provision of 100 year flood protection for existing human occupancy structures within the 100 year floodplain.
- 7.4 In the absence of plans for construction of flood control facilities, designate undeveloped or vacant land within 100-year floodplains as rural residential or open space. Do not locate critical uses, such as hospitals, fire stations, police stations, public administration buildings, and schools within flood hazard areas unless flood control improvements have been provided to the extent that these facilities could remain operational during a 100-year flood.
- 7.5 Major creeks, channels, and basins shall be kept free and clear of obstruction, and shall be regularly maintained.
- 7.6 Structures not intended for human occupancy shall be located outside the limits of the 100 year floodplain, or, if constructed within, shall be floodproofed, watertight below the designated base flood level.
- 7.7 The use of pervious paving materials in hardscape areas, the utilization of swale designs in landscape or grassy areas to slow down runoff and maximize infiltration, and the discharge of roof leaders into pervious, greenbelt and seepage pit areas shall be encouraged by the City in order to reduce increases in downstream runoff resulting from new development.
- 7.8 Evacuation plans shall be maintained for areas that would be potentially affected by flooding or dam inundation.
- 7.9 Permit only that development in an existing 100 year floodplain that represents an acceptable social and economic use of the land in relation to the hazards involved and the costs of providing flood control facilities. In the absence of adequate



downstream drainage facilities, and where increased downstream drainage may result, the incremental runoff created by a development project shall be retained onsite.

- 7.10 The design of the street and storm drain flood control systems shall be constructed to accommodate 10 year and 100 year storm flows respectively.

#### Objective 8.0

Provide noise compatible land use relationships by establishing noise standards to be utilized for design purposes within the City and its sphere of influence (see Table III-W).

#### Policy Statements:

- 8.1 The following uses shall be considered *noise sensitive*, and shall require a detailed noise impact analysis in areas where current or future exterior noise levels will exceed 65 CNEL (dBA) to establish mitigation which will reduce noise exposure to acceptable levels:
- a. single and multiple family residential uses
  - b. group homes
  - c. hospitals and extended medical care facilities
  - d. schools and other learning institutions
- 8.2 The maximum acceptable outdoor noise level for noise sensitive single and multiple family residential *activity* areas shall be 65 CNEL.
- a. Noise sensitive activity areas include patios, balconies, pool areas, cook-out areas, and recreation areas, but shall not include front yards.

- 8.3 The California Noise Insulation Standards<sup>15</sup> which apply to new multi-family dwellings within the 60 CNEL contour adjacent to roads, transit lines, or manufacturing areas will be strictly enforced to insure that the units have been designed to limit interior noise levels in all habitable rooms to 45 CNEL with doors and windows closed.
- 8.4 In the event that acceptable outdoor noise levels cannot be achieved by various noise mitigation measures, indoor noise levels for residential uses shall not exceed 45 CNEL with windows and doors closed (assuming a typical exterior to interior noise attenuation of 20 dBA unless another value is justified in the noise study).
- 8.5 Where subject to aircraft noise from March Air Force Base, the maximum acceptable outdoor noise level for noise sensitive single family detached residential activity areas, as defined by policy 8.2 above, shall be 65 CNEL, provided that interior noise levels do not exceed 45 CNEL with windows and doors closed.
- 8.6 Schools should be located and designed so that 1) interior noise levels in classrooms do not exceed 45 CNEL, and 2) exterior noise exposures do not exceed 65 CNEL at classroom buildings, or 70 CNEL on playgrounds or athletic fields.
- 8.7 Library facilities should be located and designed so that interior noise levels do not exceed 50 CNEL.
- 8.8 Interior noise levels for hospitals and convalescent homes should not exceed 50 CNEL in interior living areas and 40 CNEL in interior sleeping areas.
- 8.9 Recreational areas intended for quiet or passive activities should be designed and located so that noise levels do not exceed 65 CNEL.

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<sup>15</sup>Section 1092 of Title 25 of California Administrative Code.

- 8.10 Recreational areas intended for noisy or active uses should be designed and located so that noise levels do not exceed 70 CNEL.
- 8.11 Exterior noise levels at business and professional office, commercial, and industrial areas should not exceed 70 CNEL with the additional provision that plaza areas within business and professional office, commercial, and industrial areas be located and designed so that noise levels do not exceed 65 CNEL.
- 8.12 In areas where residential development is heavily impacted by aircraft overflight noise, the transition of residential use to those uses which are more noise compatible shall be encouraged. Where changes in the land use pattern would severely disrupt the viability of an existing neighborhood, methods of interior noise reduction should be implemented to retrofit existing residential units in order to preserve the existing neighborhood pattern of development.

Table III-W

## NOISE STANDARD DESIGN CRITERIA

Land Use	Exterior CNEL	Interior CNEL
Residential		
- Single Family or Rural Areas	65 dBA	45 dBA
- Multi-Family <sup>1</sup>	65 dBA	45 dBA
Schools		
- Classrooms	65 dBA	45 dBA
- Playgrounds	70 dBA	--
Libraries	--	50 dBA
Hospitals & Convalescent Facilities		
- Living Areas	--	50 dBA
- Sleeping Areas	--	40 dBA
Recreational		
- Quiet, Passive Areas	65 dBA	--
- Noisy, Active Areas	70 dBA	--
Commercial & Industrial	70 dBA	--
- Office Areas	--	50 dBA

1. As required by the California Noise Insulation Standards.

## **Objective 9.0**

Incorporate noise issues into the planning process and require the implementation of noise attenuation measures as conditions of approval, thereby minimizing acoustic impacts to existing and future surrounding land uses and reducing ambient noise to acceptable levels.

### **Policy Statements:**

- 9.1 Proposed projects which include potentially significant noise generators shall be required to have noise analyses prepared by an acoustical expert, including specific recommendations for mitigation if 1) the project is located in close proximity to noise sensitive land uses or land which is planned for noise sensitive land uses, or 2) the proposed noise source could violate the provisions of the City Noise Ordinance.
- 9.2 Where applicable, reports shall address the combined noise levels resulting from more than one noise source (i.e. aircraft, traffic, point sources).
- 9.3 For consistency, noise reports shall assume a three (3) dba attenuation with doubling of distance for the natural attenuation of noise emanating from roadways (with the exception of freeways where a 4.5 dba attenuation with doubling of distance may be utilized).
- 9.4 The daily design capacity as outlined in the Moreno Valley General Plan and the posted speed limit shall be utilized to quantify the design noise levels adjacent to master planned transportation routes for mitigation purposes.
- 9.5 Noise tolerant and low occupancy uses should be located in areas irrevocably committed to noise generating land uses, such as transportation or air traffic corridors.

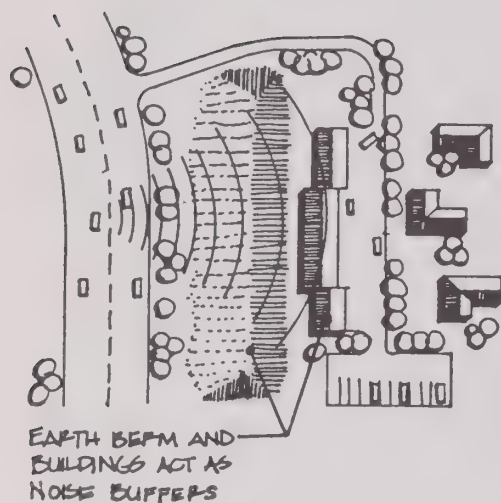


9.6 The use of design features for new developments to mitigate noise impacts on sensitive land uses shall be preferred over the provision of noise barriers. Site design techniques which should be considered to minimize potential noise impacts include:

- a. Use of building setbacks and dedication of noise easements to increase the distance between the noise source and receiver.
- b. The location of uses and orientation of buildings which are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise sensitive areas and uses.
- c. Placement of noise tolerant land uses such as parking areas, maintenance facilities, and utility areas between the noise source and receiver.
- d. The placement of noise tolerant structures such as garages or carports to shield noise-sensitive areas.
- e. Clustering of office, commercial, or multiple family residential structures to reduce interior open space noise levels.

9.7 In addition to the use of site design techniques, the provision of architectural design techniques shall be preferred to the construction of noise barriers. Architectural features which should be considered to minimize potential noise impacts include:

- a. Use of dense building materials.
- b. Tight fitting doors, ceilings, and floors.
- c. Placement of bedrooms on the side of the structure away from roadways and other noise generators.



- d. Use of double glazed and double paned windows; placement of unopenable windows on the side of the structure facing a major roadway, and placement of entry doors on the side of the building facing away from the major roadway.
- e. Avoid placement of balconies and patio areas facing major transportation routes.
- f. Provision of quiet outdoor spaces next to roadways by creating a U-shaped development facing away from roadways.

#### 9.8

Where site and architectural design features cannot adequately reduce adverse noise levels, or cannot be economically provided, noise barriers, noise berms, or barriers and berms in combination shall be required.

- a. Noise barriers must be massive enough to prevent significant noise transmission and high enough to shield the receiver from the noise source.
- b. The minimum acceptable surface weight for a noise barrier shall be four (4) pounds per square foot (equivalent to 3/4" plywood).
- c. The barrier must be carefully constructed so that there are no cracks or openings.
- d. The barrier must interrupt the line-of-sight between the noise source and the noise receiver.

- e. The effects of flanking should be minimized by bending the barrier back from the noise source at the end of the barrier.<sup>16</sup>

9.9 Landscaping treatments shall be used in conjunction with noise barriers to provide visual relief and reduce aesthetic impacts as well as noise levels.

9.10 Noise mitigation measures shall be employed in the design of all future streets and highways and when improvements occur along existing highway segments, with emphasis on the establishment of landscaped setbacks between the arterials and adjoining noise sensitive areas.

9.11 Motor vehicle noise impacts from streets and highways will be minimized through proper route location and design.

- a. Consideration shall be given to the location of truck routes, effects of truck mix, posted speed limits, and future motor vehicle volumes on noise levels adjacent to master planned roadways when improvements to the circulation system are planned.
- b. Traffic volumes through residential neighborhoods shall be minimized.
- c. The City will evaluate all highway and arterial roadway extensions for potential noise impacts on existing and future land uses in the area.
- d. The City will work closely with Caltrans in the early stages of freeway improvements and design modifications to insure that proper consideration is given to potential noise impacts on the City.

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<sup>16</sup> Flanking is a term used to describe the manner by which the performance of a noise barrier is compromised by noise passing around the end of the barrier.

- 9.12 The City will promote increased awareness of the effects of noise, and will suggest methods by which the public can be of assistance in reducing noise.

**Objective 10.0**

To minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities so that SENEL is no greater than 15 dBA above the maximum allowable CNEL for the noise sensitive use.

**Policy Statements:**

- 10.1 The City shall review and respond to any proposals involving new flight patterns, more intense operations over the City, or relocation or extension of runways which would create the potential for noise impacts on sensitive land uses within the City in a manner consistent with other noise policies contained herein.
- 10.2 The City shall encourage the use of noise-reducing flight procedures for airplanes and helicopters, such as maintaining minimum flight altitudes, using less noise sensitive flight paths, or flying during less sensitive hours.
- 10.3 The City shall support the implementation of noise control procedures by March Air Force Base, and will consider methods by which noise exposure to aircraft flyovers within the City may be minimized.
- 10.4 The City shall participate in the planning activities of County and State agencies relative to the location of new airports and the assessment of their impact on the environment of the City.

- 10.5 New commercial and industrial activities (including the placement of mechanical equipment) shall be designed so as insure that activities comply with the maximum noise level standards at the property line of adjacent uses, thereby minimizing impacts on adjacent uses.
- 10.6 The design and placement of air conditioning units and pool equipment within residential areas shall be accomplished in a manner which does not intrude upon the peace and quiet of adjacent noise sensitive uses.
- 10.7 Construction activities shall be limited to daylight hours between 7:00 am and 7:00 pm, except in emergency situations.

#### Objective 11.0

Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.

#### Policy Statements:

- 11.1 Locate new neighborhood commercial facilities within close proximity to the residential areas they serve.
- 11.2 Multi-family residential developments should be located in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.
- 11.3 Neighborhood parks should be located in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.



## **Objective 12.0**

Reduce mobile and stationary source air pollutant emissions by reducing the amount of vehicular travel; maximizing ride sharing, the use of public transit, and other transportation systems management programs; limiting local industrial use to clean industries; and reducing local energy consumption.

### **Policy Statements:**

- 12.1 The City shall cooperate with and facilitate the efforts of the South Coast Air Quality Management District, Southern California Association of Governments, Riverside County, etc., in order to establish and implement regional air quality strategies and tactics.
- 12.2 The City shall encourage, and facilitate where possible, the financing and construction of park-and-ride facilities.
- 12.3 The City should encourage the use of bikeways and pedestrian trails as nonpolluting circulation alternatives.
- 12.4 The use of transit for express service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange, and Los Angeles Counties shall be encouraged by the City.
- 12.5 The City will encourage the development of job-intensive uses within designated employment centers to reduce the length of home-to-job commutes by local residents.
- 12.6 The City shall encourage the location of air pollution sources such as manufacturing and extraction facilities away from residential areas and sensitive receptors.
- 12.7 The City shall encourage the inclusion of buffer areas within residential and sensitive receptor site plans to separate and/or buffer those uses from freeways, arterials, point sources, and hazardous material locations.

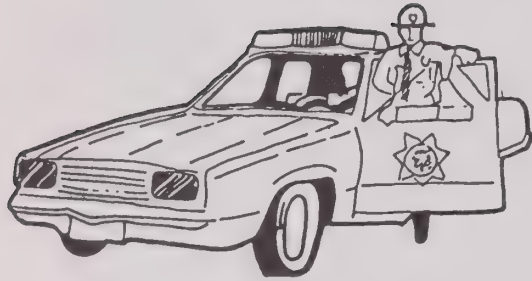
- 12.8 The City shall notify local and regional jurisdictions of proposed projects which may affect regional air quality.
- 12.9 The City shall encourage the promotion of trip reduction and traffic mitigation measures for home-to-work trips by facilitating and participating in the following programs:
- a. Goal-oriented trip reduction plans by employers (both public and private) with 25 or more employees.
  - b. Encourage the development and implementation of trip reduction plans from building owners and managers with tenants employing 25 or more employees.
- 12.10 The City shall encourage support for State legislative measures which provide incentive measures to stimulate and increase the use of van pools for work-related trips.
- 12.11 The City shall support the development and use of alternative fuel sources for transportation related activities (i.e., city vehicles, buildings) to reduce local government energy demand.

### **Objective 13.0**

Maintain a police force with a ratio of one sworn officer for each 1,000 residents, deployed so that, in an emergency situation, all areas of the City can be reached by police officers within five minutes.

### **Policy Statements:**

- 13.1 The City shall continue the funding of law enforcement services to maintain a high level of service, and expand that funding as necessary to keep pace with the needs of the City's growing population.



- 13.2 The City shall study regional, state, and federal programs to determine where opportunities for law enforcement assistance can be utilized.
- 13.3 The City should explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.
- 13.4 The City shall continue to explore the availability of state and federal grants to offset any required additions in law enforcement staffing and/or equipment.
- 13.5 To reduce the need for police protection during construction, onsite security should be provided for individual construction projects.
  - a. The Police Department shall be provided with keys to all locks on construction site gates.

#### Objective 14.0

Reduce the risk and fear of crime through physical planning strategies that will maximize surveillance opportunities and minimize opportunities for crime found in the present and future built environment, and by creating and maintaining a high level of community awareness and support of crime prevention.

#### Policy Statements:

- 14.1 Law enforcement personnel should be involved in the development review process for all new development proposals.
- 14.2 Decisions involving crime prevention techniques in commercial and industrial properties should aid community surveillance and the patrol operations of law enforcement personnel.

- 14.3 The City shall promote the establishment of neighborhood watch programs to encourage community participation in the patrol of neighborhood areas, and increased awareness of any suspicious activity.
- 14.4 The City shall promote crime prevention programs for commercial and industrial areas.
- 14.5 Street lighting shall be required in urban residential, and in all commercial, and industrial areas to discourage crime.
- 14.6 Lighting shall be used for the purpose of providing illumination for the security and safety of on-site areas such as parking lots, loading, shipping and receiving, pathways and working areas, in accordance with the recommended lighting levels shown in Table III-T and the following standards:
- a. The design of light fixtures and their structural support shall be architecturally compatible with the surrounding buildings.
  - b. Walkway lighting fixtures shall have an overall height not exceeding 12'.
  - c. Security lighting fixtures are not to project above the fascia or roof line of the building.
  - d. All lighting is to be shielded to confine light spread within the site boundaries. Particular concern shall be for lighting adjacent to residential areas.
- 14.7 The City shall discourage crime through the incorporation of "defensible space" concepts into the design of dwellings and structures as follows:
- Residential:*
- a. Well lighted and visible streets and street names, entrances, and house numbers.

- b. Avoidance of "flag lots" wherever possible.
- c. Well lighted and windowed apartment stairwells where possible.
- d. Limitation of access into and between buildings so escape routes are fewer and undetected entrance is more difficult.
- e. A visually well defined separation between public and private areas.
- f. Placement of windows to allow easy resident surveillance of yards, corridors, entrances, parking areas, streets and other public and semi-public places.
- g. Landscaping which permits surveillance of open areas and entryways, and does not create places for concealment.
- h. Location of kitchen and living areas to facilitate surveillance.
- i. Elimination of undefined hallways, particularly double-loaded corridors shared by large numbers of families. Entries and circulation corridors should be designed so that as few families as possible share a common lobby, facilitating the recognition of strangers.

***Industrial and Commercial:***

- a. Landscaping, location of buildings and walls, etc. should facilitate surveillance from the street and from neighboring structures, and should not provide places for concealment.
- b. The street system should allow emergency vehicle access fully around buildings to the full extent possible.



- c. Parking and walkways should be located where surveillance from streets or by an attendant is possible to reduce worker or customer isolation when walking to and from cars.
- d. Access to buildings or building groups, and access between buildings should be limited so escape routes are fewer, and entrance into the building is made more difficult.
- e. Access to roofs by pallets, flag poles, etc., should be eliminated or avoided.
- f. First floor windows should be kept to a minimum, made burglar resistant, and/or placed so as to promote surveillance from adjacent streets.
- g. Where possible, areas should be designed so that they can be sealed off when not in use.
- h. Alarm systems should be installed on a zone basis so that the entire area does not need to be sealed off in an emergency.
- i. Street names and building numbers should be well lit for easy identification.

***Recreation Areas:***

- a. Adequate lighting
- b. Design which facilitates surveillance from streets and nearby buildings.
- c. Location of park buildings and high use activities near streets.

***Street Design:***

- a. The provision of adequate off-street parking in commercial areas and near public facilities for the purpose of minimizing parking violations.

- b. Uniform road widths and signalized intersections for the purpose of minimizing moving violations.
- c. Adequate street lighting for maximum surveillance and visibility.

#### Objective 15.0

Protect life and property from the potential short-term and long-term deleterious effects of the necessary transportation, use, storage treatment and disposal and hazardous materials and waste within the City of Moreno Valley.

#### Policy Statements:

- 15.1 Require commercial and industrial concerns within the City of Moreno Valley to provide the Fire Department with a list of all hazardous materials used at the site, a description of where and how each is stored, and how each react in a fire.
- 15.2 Maintain an inventory of all hazardous materials used and stored within commercial and industrial areas and the location at which each is stored. Also, require that placards or appropriate signage be utilized on all buildings which have hazardous materials or waste stored.
- 15.3 Prohibit the unlawful discharge of hazardous wastes into air, land, or into water resources within city boundaries.
- 15.4 Ensure the safe transport of hazardous materials and waste by designating truck routes and by achieving a land use pattern which discourages industrial access through residential areas.
- 15.5 Encourage the development of environmentally sound industries and assembly operations within the City.

- 15.6 Require as a condition of approval for uses which may pose a significant risk to public health, safety, and welfare by creating, utilizing, storing, or treating hazardous materials or waste, that a hazardous materials and waste management plan be provided which provides for the use of the best available technology within the production process. The plan shall outline source reduction methodology, treatment, handling, transportation, and disposal of hazardous waste, including emergency response and employee training methods.
- 15.7 Require implementation of best available technology for onsite pre-treatment and reduction of hazardous wastes prior to disposal whenever feasible.
- 15.8 Locate uses which may pose a significant risk to public health, safety, and welfare by receiving, utilizing, storing, transporting, or disposing of hazardous waste and materials in areas which are planned and zoned for industrial use, have access to sewer and freeways, and are a least 2,000 feet from the nearest planned residential area.

#### **Objective 16.0**

Be the first responder to any disaster situation in the City of Moreno Valley, and to provide necessary emergency services until mutual aid can arrive.

#### **Policy Statements:**

- 16.1 Maintain an effective and properly staffed, trained, and equipped communications unit for receiving emergency calls, providing initial response, providing for key support to major incidents, meeting the demands of automatic and mutual aid programs as well as major incident and disaster operations, and maintaining emergency incident statistical data.

- 16.2 Maintain an integrated emergency management plan, including a list of all local resources for equipment, material, specialized assistance, etc.
- 16.3 The City shall utilize its emergency plan to provide direction to all persons responsible for acting in a disaster situation.
- 16.4 The City shall encourage the generation of ideas, plans and programs for the improvement of Moreno Valley's Emergency Plan.
- 16.5 Ensure that the maximum advantage is obtained from the resources of the Federal Government, state, county and neighboring municipalities and support efforts of other jurisdictions to provide safety related services.
- 16.6 Encourage the establishment of a trauma center and expansion of paramedic services within the City of Moreno Valley.

#### **Objective 17.0**

Coordinate with county and neighboring communities in developing a regional system to respond to daily emergencies and major catastrophes.

#### **Policy Statements:**

- 17.1 The City of Moreno Valley shall continue to support its mutual aid agreements and communication links with the County of Riverside and other local, participating jurisdictions.
- 17.2 New opportunities for joint-power agreement facilities and/or operations should be evaluated and pursued where practical.

#### **Objective 18.0**

Maintain fire prevention engineering, fire-related law enforcement, and public education and information programs to prevent fires.

##### **Policy Statements:**

- 18.1 The City shall encourage periodic, but on-going programs that inform and educate the general public regarding various methods of achieving a state of self-reliance in fire hazard prevention.

#### **Objective 19.0**

Achieve and maintain five minute response capability to all urban areas and six minute response capability to all rural areas.

##### **Policy Statements:**

- 19.1 To ensure rapid response times, fire stations shall be located on or near major arterial highways.
- 19.2 In locating new fire station facilities, the City shall consider existing land uses, and appropriate buffering should be provided where necessary.
- 19.3 The City shall relate the timing of fire station construction to the rise of service demand in surrounding areas.
- 19.4 Development beyond the nearest fire station's response zone will be prohibited unless land is dedicated and monies are provided toward construction, equipment, and maintenance of a fire station in order to maintain an adequate maximum response time.



#### **Objective 20.0**

Ensure that property in or adjacent to wildland areas is reasonably protected from wildland fire hazard, consistent with the maintenance of a viable natural ecology.

#### **Policy Statements:**

- 20.1 Where wildland areas are adjacent to urban development, the City shall encourage programs for the prevention of fuel build-up.
- 20.2 The Fire Department shall evaluate all uses locating in or adjacent to wildland areas, both in terms of their vulnerability to fire hazard and in terms of their potential as a source of fire.
- 20.3 Fire prevention measures implemented in wildland areas shall be tailored to both the aesthetic and functional needs of the natural environment.

#### **Objective 21.0**

Ensure that uses within urbanized areas are planned and designed in a manner that is consistent with accepted fire safety considerations.

#### **Policy Statements:**

- 21.1 The City shall ensure that its ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety.
- 21.2 The City shall continue to obtain fire department input for all developments that require site plan or subdivision review.
- 21.3 The City shall encourage the systematic mitigation of existing fire hazards related to urban development or patterns of urban development as they are identified and as resources permit.

- 21.4 The City, where appropriate, shall encourage the enhancement of minimum fire standards of the Uniform Fire and Building Codes, in order to provide optimum protection.
- 21.5 The City shall ensure that all public facilities and transportation corridors are located, designed and improved to withstand an appropriate degree of fire disaster.



## M. IMPLEMENTATION PROGRAMS

1. Request that Caltrans inspect I-215, State Route 60, and other state facilities within the Moreno Valley study area for potential seismic-related weakness to ensure the integrity of those facilities as emergency evacuation routes.
2. Request that public utility companies inspect their facilities and distribution networks to determine the potential impact of earthquake damage.
3. Evaluate historical buildings relative to the need for mitigation of geologic hazards, while weighing their historical value against the potential hazard of their collapse.
4. Request that state and local entities responsible for the maintenance and inspection of Lake Perris Dam and Pigeon Pass Reservoir inspect those facilities to determine their ability to withstand earthquakes and to ensure that water levels are such that they preclude overtopping.
5. Revise City building code requirements as necessary to insure that structures within the City survive sufficient "g" force in compliance with Policy 6.2.
6. Revise existing building code provisions to permit overtime inspection, and implement other revisions to existing code requirements as is necessary to insure that Building Department inspection personnel and workloads are sufficient to adequately insure compliance with seismic design criteria.
7. As a disaster preparedness measure, develop evacuation plans and programs for areas shown to be potentially subject to flood inundation should the Perris Dam or Pigeon Pass Reservoir fail.

8. Involve the local school system and other groups and organizations in awareness programs regarding the detrimental impacts of noise and what individuals can do to minimize unnecessary noise in their own environments on a day-to-day basis.
9. Adopt an ordinance for the regulation of noise sources and the maintenance of established maximum noise levels for the various land use categories.
10. Prior to development adjacent to SR 60, prepare a corridor study to identify specific noise control and viewshed protection design solutions.
11. In order to reduce excessive traffic noise levels within the City of Moreno Valley in accordance with the California Motor Vehicles Code noise standards, actively facilitate the efforts of local law enforcement agencies to enforce such standards on an on-going basis.
12. In mitigating potential adverse impacts of noise take full advantage of such mitigation measures as natural topography, screening techniques, building setbacks, floor plan arrangements, solid sound attenuation walls, earthen berms, etc.
13. Reevaluate designated truck routes in terms of noise impact on existing land uses to determine if those established routes and the hours of their use should be adjusted to minimize people's exposure to truck noise.
14. Work with Caltrans and the South Coast Air Quality Management District to implement incentive programs that encourage ride sharing, ramp metering, and high-occupancy vehicles lanes along State Route 60 and Interstate 215.
15. Implement programs in support of the Air Quality Management District's efforts to mitigate stationary sources of air pollution within the study area, and evaluate the impacts of proposed highways and major arterials on air quality and pollution levels as a continuing subject of research.



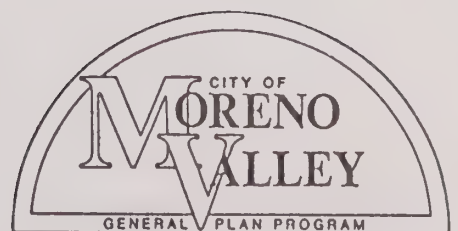
16. Implement incentives which give special consideration to non-polluting industries and commercial enterprises seeking to locate within the City of Moreno Valley.
17. Require the implementation of auto-free zones in areas of dense pedestrian activity in conjunction with designated off-street or remote parking facilities.
18. Reevaluate designated truck routes in terms of the reduction of mobile emissions to determine if established truck routes and the hours of their use should be adjusted to minimize traffic congestion.
19. Implement a computerized and interconnected traffic signal system to reduce the amount of recurrent vehicular delay, and to serve as a traffic management tool in combating traffic congestion.
20. Support State legislation which would require covers and liners for truck beds hauling fine particulate materials.
21. Reduce local government energy demand, on a phased basis, by 30 percent by the year 2010 (15 percent by the year 2000).
22. Reduce local government refuse requiring disposal, on a phased basis, by 35 percent by the year 2000.
23. Prepare and adopt regulatory incentives for residential and commercial energy conservation which will reduce residential and commercial energy consumption by 10 percent by the year 2000 and 15 percent by the year 2010.
24. Review existing ordinances to ensure that building and site design standards specifically address crime prevention utilizing defensible space criteria.
25. Include adequate security standards in the City building code and take full advantage of the opportunity to evaluate development proposals on the basis of their crime inducing/mitigating impacts.

26. Require the participation of the Police Department in the development review process relative to building and site plan vulnerabilities to criminal activity and suggested design criteria to mitigate such vulnerabilities.
27. Implement crime prevention through physical design, based upon the concept of defensible space with the establishment of specific design criteria, and the application of that criteria to proposed projects through the development review process.
28. Disseminate information in the form of a public-oriented summary of the Public Health and Safety Element, including procedures to follow in the event of disaster.
29. Disseminate information to the general public, as well as to design professionals and agencies in the private sector, regarding the concepts of defensible space.
30. Initiate a study of existing private streets to determine a means of dealing with areas where emergency access problems exist due to parked cars blocking access by emergency vehicles.
31. Solicit Fire Department input in the evaluation of historic structures, and balance the historic character and value of the structure against safety needs.
32. Evaluate the potential use of fire retardant plant materials that are compatible with native Riverside County flora, as a fire protection tool around combustible structures in or adjacent to wildland areas.
33. Evaluate requirements for the clearance of native plant materials from around combustible structures, and, if appropriate, modify these requirements to reflect a balance between fire safety and providing an aesthetically pleasing environment.

34. To protect wildland areas from fire, both in terms of their vulnerability and in terms of their potential as a source, prohibit the use of untreated shake or any other kinds of combustible roof material in, or adjacent to such areas.
35. Adopt the 1986 Moreno Valley Fire Protection Plan and implement an early site acquisition program in order to minimize fiscal impact and maximize options for alternative sites with optimum locations.
36. Take full advantage of the CEQA process toward the mitigation of the potential adverse impacts of development on present or future fire suppression programs.
37. Work with the Fire Department and County Fire Marshal to identify City requirements, including standards for building design, construction materials, street layout and signage, fire sprinkling systems, fuel modification, and other measures to identify appropriate and feasible revisions which would reduce the risk of fire and/or facilitate the effectiveness of fire suppression programs.



# IV. COMMUNITY AND CULTURAL RESOURCES ELEMENT







#### IV. COMMUNITY AND CULTURAL RESOURCES ELEMENT

##### A. INTRODUCTION

The Community and Cultural Resources Element is intended to evaluate the various community and cultural amenities and services which are critical to the establishment of a desirable living environment. Whereas the previous elements stressed management of environmental resources, and natural and manmade environmental constraints, this element focuses on the components of the community's physical perspective, cultural heritage, and "lifestyle".

This element is divided into the following major sections:

- Aesthetic Resources
- Landform
- Open Space
- Historical and Archaeological Resources
- School Facilities
- Parks and Recreational Facilities
- Library Facilities
- Social Services



## B. COMMUNITY AND CULTURAL RESOURCES GOALS

It is the goal of the Community and Cultural Resources Element of the Moreno Valley General Plan to achieve:

- Enhancement of civic pride and a "sense of community".
- Enhancement of Moreno Valley as a desirable place in which to live, work, shop, and do business.
- Retention of an open space system which will conserve natural resources, preserve scenic beauty, promote a healthful atmosphere, provide space for outdoor recreation, and protect the public safety.





## C. AESTHETIC RESOURCES

### 1. EXISTING SETTING

The City of Moreno Valley lies on a relatively flat valley floor surrounded by significantly steep hillsides. The topography of the study area is defined by the Box Springs Mountains and Reche Canyon area to the north, the "Badlands" to the east, and the Mount Russell area to the south. These land features provide the City with some of the most outstanding vistas and landforms found in Southern California. The major aesthetic resources within the study area include views of these topographic features and the southerly views of the San Jacinto Valley (see Figure 25).

The major aesthetic resources within the Moreno Valley study area are easily visible from State Route 60, the major transportation route in the area. Upon entering the Moreno Valley from the west, the dominant view is of the Box Springs Mountains to the immediate north and the Mount Russell foothills to the south. The Box Springs Mountains rise 1450' above Route 60. Mount Russell's grandeur is especially evident at the eastern end of Alessandro Boulevard and along Davis Road where the mountain rises 1100' above the valley floor. Both the Box Springs Mountains and the Mount Russell area display numerous granitic outcroppings and weathered boulders of varying size and shape, adding distinguished character to these landforms.

Pettit Hill, a significant rock outcrop landform also exists south of State Route 60 along Moreno Beach Drive. Having similar characteristics to the above mentioned landforms, this landform only rises a few hundred feet above the valley floor but has a unique location, being situated near the center of the valley.

Lake Perris is an extremely important aesthetic resource; however, there is no view of the lake from the City of Moreno Valley. Situated behind Mount Russell and the adjoining foothills, Lake Perris offers aesthetic and recreational pleasure to its visitors. The lake is characterized by a periphery of steep

rocky hillsides and shore banks, a small island, and a white sand beach. Moreno Beach Drive not only provides the City with a main entrance to the lake, but also offers a panoramic view of the City on its approach to the lake.

As State Route 60 traverses east through Moreno Valley, it passes through the Badlands area. Characterized by extremely steep and eroded hillsides, the Badlands form the eastern boundary of the study area and provide a sweeping southeasterly range of low-lying yet steep hillsides which act as a visual backdrop to the rather level valley floor.

Vast expanses of dry farmed agricultural lands are located throughout the eastern portion of the study area. These tracts of land allow for spectacular and uninterrupted scenic vistas of the surrounding landforms and provide a focused viewshed toward both the Moreno Valley and the San Jacinto Valley.

Views of the San Bernardino and San Gabriel mountains are evident at times from the valley floor as they appear backdropped to the northern hills of the study area. Winter snows in the San Bernardino and San Jacinto Mountains often provide a striking contrast to this view.

Other agricultural land uses such as citrus groves and other tree crops scattered throughout the northern and central portions of Moreno Valley provide a visually pleasing contrast to dry farming and urban land uses. Such groves also add to the rural setting of the Moreno Valley.


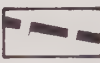


The Moreno Valley study area includes three routes previously identified by the County as "Eligible County Scenic Highways". These routes include Redlands Boulevard from the Pomona Freeway north to San Timoteo Canyon Road, Gilman Springs Road from the Pomona Freeway south into San Jacinto, and San Timoteo Canyon Road. Illustrated in Figure 25, each of these highways has been recognized for the scenic value of the land which they traverse. The enhancement and preservation of such scenic corridors requires careful application of special standards developed to preserve and enhance valuable scenic resources.





# AESTHETIC RESOURCES

## LEGEND

-  PHOTOGRAPHIC  
VIEW LOCATION
-  ELIGIBLE COUNTY  
SCENIC HIGHWAYS
-  PANORAMIC VIEWSHEDS
-  HILLSIDE AREAS

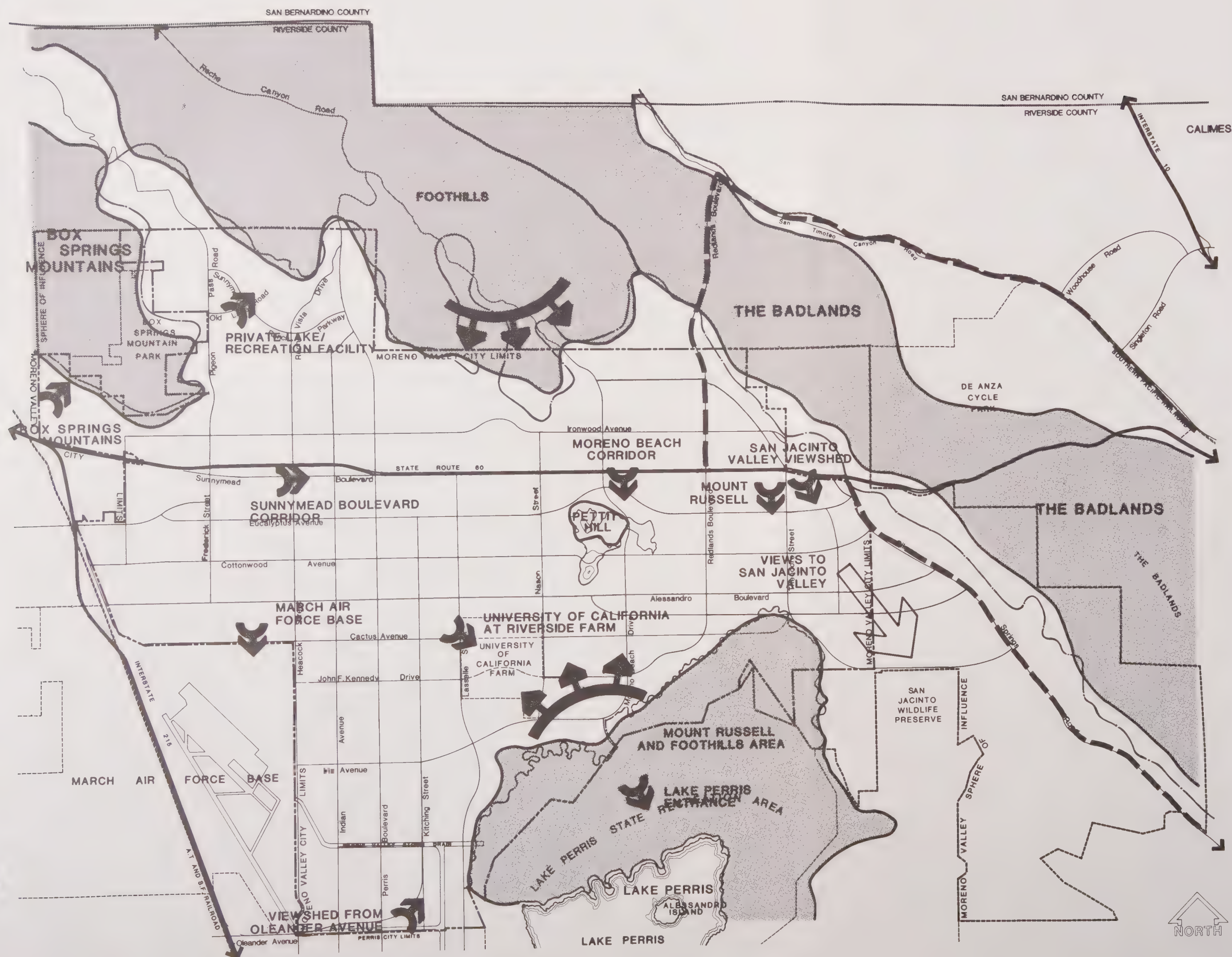
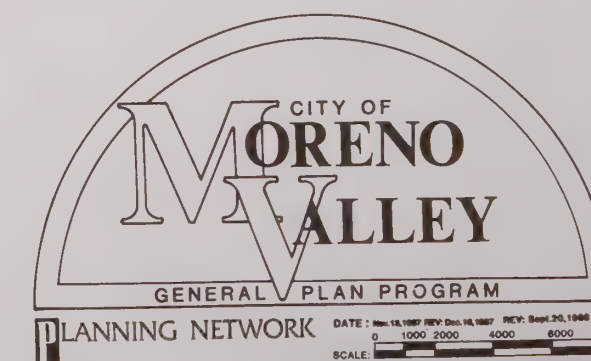


FIGURE 25





## 2. ISSUES AND OPPORTUNITIES

Recognition and preservation of visual resources contributes greatly to the overall desirability of a community. The distinctive and unique physical setting of Moreno Valley creates much of the City's appeal as a place in which to live and do business. Thus, Moreno Valley's visual resources are also a significant economic resource for the community.

With the many scenic values associated with the City of Moreno Valley, it becomes extremely important to preserve these resources through carefully planned development which may preserve and enhance the visual characteristics throughout the study area. Certain visual features can also be economic features for the City. Improvements to the City's westerly entryway, along State Route 60, could spur economic investment within the City or could help encourage freeway travelers to enter the City with consequent economic benefits. In addition, improved identification with Lake Perris, off Moreno Beach Drive, could encourage freeway travelers to enter the City and ultimately utilize area commercial facilities.

Although the major scenic highways within the study area were previously identified by the County of Riverside as eligible scenic routes, official scenic corridor designation was not obtained. Designation as an Official Scenic Highway would have required completion of a corridor study prepared by the Riverside County Planning Department and approval by the State Director of Transportation.

However, the City of Moreno Valley has the opportunity to designate these routes as local scenic highways as part of its general plan program. Designation as a local scenic highway would allow for the implementation of special land use standards designed to preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public. Scenic corridor development could include such features as roadside rests, information and interpretive displays, and special roadside plantings to protect and enhance views from the road. Recreational facilities such as riding, hiking, and bicycle trails would also be incorporated within



scenic corridors, where feasible. Other development criteria could be developed to regulate offsite outdoor advertising displays, onsite signs, earthmoving operations, commercial and industrial development, and location of public utility lines.


Scenic roadways, other than the previously identified eligible county scenic routes, exist within the study area, and offer a variety of vista views and other visual features, characteristic of the area. Determination of significant visual features within the study area is necessarily subjective, based on the visual terms of uniqueness, the size or panoramic nature, the boldness of form, the dominance of presence, and the degree to which the community derives its character or reputation from the feature or area. Based on the above criteria, any roadways subject to these scenic conditions could be deserving of City designation as a scenic visual resource. Routes which might be considered for local scenic highway designation by the City include Moreno Beach Drive and Pigeon Pass Road.

Currently, development along many of the City's major residential, commercial, and freeway transportation corridors, including the Pomona Freeway, Interstate 215, and Sunnymead Boulevard, generally have not been conducive to the natural aesthetics of the study area. In addition, City gateways presently lack definition. However, the City of Moreno Valley is currently developing a program to upgrade the existing visual character of the transportation corridors and improve the standards of future development in order to attain a balance of urban and natural aesthetic resources.

## D. LANDFORM AND TOPOGRAPHY

### 1. EXISTING SETTING

#### a. LANDFORMS



The physical structure of Moreno Valley provides a significant contrast between a relatively flat valley floor and surrounding steep hillsides, as illustrated in Figure 26. The City generally lies within a valley area, bounded by the Box Springs Mountains to the north, the Badlands to the east, and the Mount Russell area to the south. Thus, the surrounding mountainous terrain physically isolates all but the western portion of the valley from the adjacent areas within the general region.

The majority of the study area lies on the valley floor. The valley terrain gently slopes south to southwest. The valley floor elevation slopes from 1580' at the east portion of the valley to 1450' at the lower southwestern portion of the valley. Identifiable landforms on the valley floor are generally absent; however, several localized areas of rock exposure and outcropping are dispersed throughout the valley, adding character to the otherwise undistinguished valley floor.

There are no major waterways or arroyos, and drainage courses are generally very shallow. Despite the rather level surface of the valley floor, there are several distinct landforms that define the City of Moreno Valley.

Rising over 240 feet, Pettit Hill is the primary physical feature on the valley floor. It is located near the center of the valley south of SR 60 along Moreno Beach Drive. Pettit Hill is a significant natural landmark and contains numerous rock outcrops, steep hillsides, and gently to moderately sloping fan areas.

On the west side of Moreno Valley, a low lying ridgeline extends from the Box Springs Mountains southward, before generally leveling out across the former Riverside International Raceway site. Lands

to the west of this ridge generally slope to the southwest. Another low-lying ridge runs roughly in a north-south orientation between Moreno Beach Drive and Nason Street. Lands to the east of this ridge slope to the southeast toward the San Jacinto area. Between these two ridges, the valley floor generally slopes to the south, toward and around Mount Russell and associated foothills along Lake Perris.

The northern side of the Moreno Valley is sharply defined by the Box Springs Mountains and the Badlands. The Box Springs Mountains offer a dramatic landform, consisting of rugged slopes of exposed granitic rock and boulders. The highest elevation of 3106' occurs at Reche Peak. Another dramatic and rather unusual landform is the Badlands, located along the northern and eastern margins of the study area. The Badlands area consists of sediments, originally deposited in an inland sea, later elevated above the water, deformed by geologic processes, and then severely eroded by drainage ways. Slopes are steep to very steep with elevations ranging from 2,000' to 3,100' as seen from the sandy area.

The southern boundary of the study area is sharply defined by Mount Russell and adjoining foothills, situated in an east-west pattern, and forming the north shore of Lake Perris. Similar in composition to the Box Springs Mountains, this area features steep to very steep slopes with exposed granitic rock and boulders. Mount Russell reaches an elevation of 2704', while the foothills range from 1800' to 2400'.

#### b. TOPOGRAPHY

The topography of the Moreno Valley study area varies from the relatively flat lands on the valley floor to the adjacent hills and mountains. Such topographic variation serves as a physical, and therefore, economic barrier to land use, which can be largely determined by the percentage of slope in a particular area.

The percentage of slope over a given distance is one measure of slope severity. For example, a change in elevation of ten feet over a horizontal

distance of one hundred feet is classified as a ten percent slope. Slope classifications are necessarily general, and their direct application to land use decisions is sometimes difficult. However, there are some fundamental criteria which are commonly accepted, such as slope of less than two percent providing poor drainage, and slopes over 25 percent generally being unsuited for urban development.

In Figure 26, slopes within the Moreno Valley study area are classified according to the extent to which they restrict potential uses: flat to moderate slopes of 0 - 10 percent are capable of supporting intensive urban activity; moderate grades of 10 - 25 percent are capable of permitting light to moderate urban and rural activity, limited development, and informal activity; and the steep lands of over 25 percent slope present the greatest limitations to any type of land development.

## 2. Issues and Opportunities

### a. SIGNIFICANT LANDFORMS

The unique landforms which comprise the physical setting of the Moreno Valley study area are of extreme importance to the character and visual quality of the local community. By providing a physical boundary for Moreno Valley, the hillsides set the City apart from adjacent communities, and are therefore an important component of community identity within Moreno Valley. The hillsides surrounding Moreno Valley not only physically define the City, but also provide significant visual relief, adding form and visual character to the valley floor. As the primary viewshed feature, the hillsides within the study area merit protection of their natural and visual character from physical changes associated with urbanization. In particular, Pettit Hill, located near the center of the valley, is a significant landmark, meriting protection and preservation.



## b. TOPOGRAPHY

In addition to significant landforms, local topography within individual building sites also affects the type and character of development which is possible. While the steepness of slope contributes to the overall capability or inability of various lands to support certain activities, it is usually not the sole determinant. To some extent, topographic variations provide an opportunity to the experienced and innovative site designer by creating potential for view lots and added privacy for individual homes.

Land uses should, as much as possible, be tailored to the specific topographic features of a given area. Urban and agricultural development costs are considerably less in flat areas as opposed to more rugged terrain. The cost of extensive land alteration, including grading and trenching, greatly increases the initial cost of providing public utilities and access. Thus, land development can be expected to occur more rapidly in flat areas, due to the lower cost as compared to areas with extreme topography.

In general, portions of the study area contain steep slopes that are well defined, including the Box Springs Mountains, the Badlands, Pettit Hill, and the Mount Russell area. Lands within the study area vary from the relatively level valley floor, to the transitional slopes and hills, to the relatively steep slopes of the surrounding mountain and foothill ranges. In terms of slope, the valley floor areas offer few, if any limitations to various types of development. The transitional slopes and hills present few to only moderate limitations to development. However, the steeper slopes of the study area present moderate to severe limitations to development with many slopes being so steep as to effectively restrict land use to only limited recreational development or open space. The steeper sloped areas are also limited in terms of adequate access and utilities to support urban development, and by the difficulty and expense of development associated with steep and rugged terrain.



### C. RIDGELINES

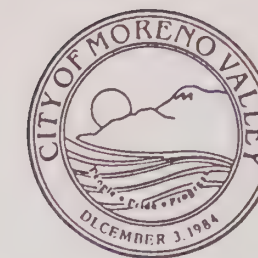
While the hillsides offer the potential for aesthetically pleasing residential living environments for future residents of Moreno Valley, more importantly they constitute the community's significant visible resource in their natural state. Therefore, development of the hillside areas within the study area should be low profile in character and must balance the retention of areas as open space with the areas of new construction. Such open space could provide passive recreation such as its inclusion within the equestrian and hiking trails system, or it could simply be preserved on the basis of visual aesthetics.

Prominent ridgeline areas within the hillsides offer the best application for open space as they constitute the single most important feature of the natural topography, relative to the visual aesthetics of the hillside landforms as viewed from the valley floor.

Therefore, well thought out, comprehensive guidelines for development of the hillsides within the shaded areas of Figure 26 are of paramount importance to the preservation of the prominent ridgelines and maintenance of the community's currently natural open space character.



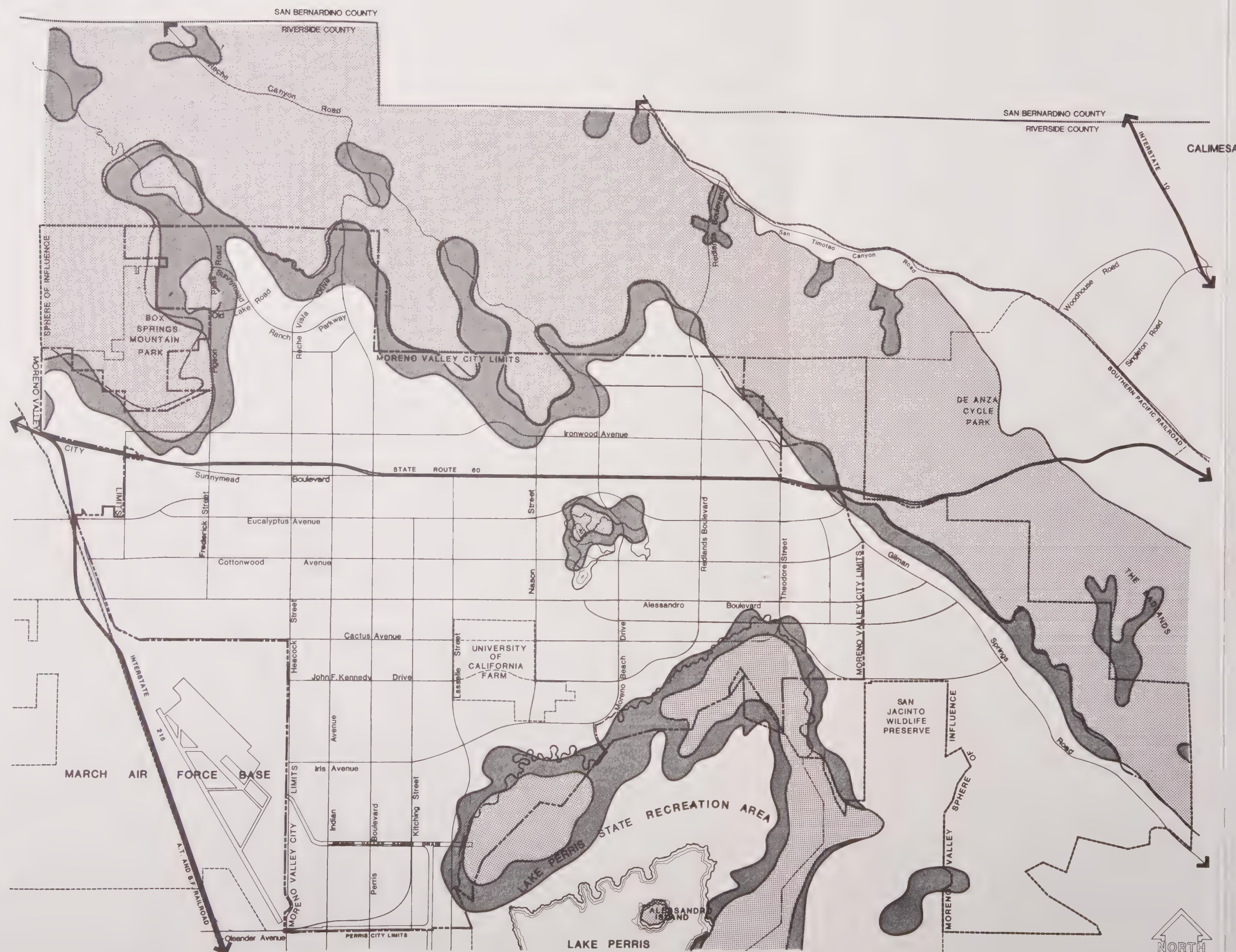




# SLOPE

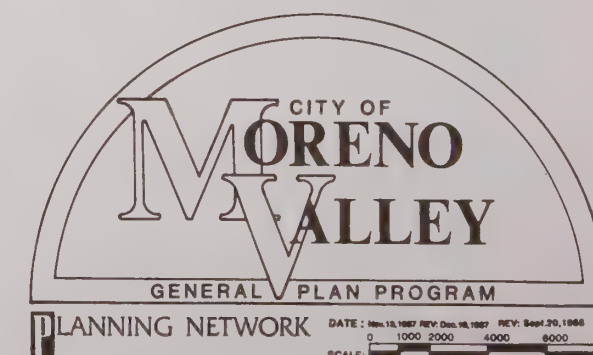
## LEGEND

- 0 - 10%
- 10 - 25%
- 25% - -



Source: Riverside County

FIGURE 26







## E. OPEN SPACE

### 1. EXISTING SETTING

Open space is a key feature within the Moreno Valley study area. According to the Urban Land Institute's research team report, a large percentage of the study area's acreage is presently in open space. Open space surrounds Moreno Valley on all four sides, giving it an identity unlike other communities in the region.

Open space is not unproductive, undeveloped property. Rather, it is an important regulator of density and resources in the community. Open space uses in the study area fall into the following classifications:

- lands for preservation of natural resources
- lands for managed production of resources including agriculture
- outdoor recreation areas
- public health and safety lands

#### a. OPEN SPACE LAND FOR THE PRESERVATION OF NATURAL RESOURCES

Open space lands for the preservation of natural resources are those lands which possess significant natural value. A major proportion of the study area's open space consists of such lands. The Box Springs Mountains, the Reche Canyon area, the Badlands, and the Mount Russell area with its associated foothills typify the rugged open space encircling the City. These lands are presently in a combination of public and private ownership.



b. OPEN SPACE LANDS FOR THE MANAGED PRODUCTION OF RESOURCES

Moreno Valley's agricultural open space generally corresponds to the distribution of prime agricultural soil types in the study area. As previously mentioned, the United States Soil Conservation Service (SCS) has developed a land classification system to identify the agricultural potential of soils. In this classification, soils are grouped according to their potential and limitation for sustained production of commonly cultivated crops.

Moreno Valley is part of Riverside County's "Alessandro District", which covers agricultural production throughout the western portion of the County. The Alessandro District is the County's second most productive growing region after the Coachella Valley District. The value of crops within the Alessandro District rose to \$167.6 million in 1985 despite the loss of agricultural acreage in Moreno Valley as well as other urbanizing areas in the western portion of the County. Production and value statistics are not available for Moreno Valley's share of the District's 1985 production.

Open space devoted to agriculture encompasses a large portion of the City's total area. However, this figure is continuing to diminish as urban and rural residential development encroaches on agricultural lands. In fact, agricultural open space is increasingly "checker-boarded" by residential subdivisions.

Privately owned agricultural land within the Moreno Valley study area is generally leased to farm operators. Few, if any of the farms within the valley are owner-operated. Four major types of agricultural use are found in Moreno Valley: grazing, groves, dry grain farming, and truck crop production. Table IV-A details the acreages devoted to these uses.

Table IV-A

## AGRICULTURAL USES WITHIN THE STUDY AREA (1986)

Use	Acreage
Grazing	130
Dry Farming (grains)	3,521
Irrigated Crops (vegetables)	N/A
Groves	355
Groves (abandoned)	27

Source: Riverside County Agriculture Commissioner's Office.

Grazing uses occupy approximately 130 acres of open space. Some cattle as well as sheep graze on these properties. In addition, some temporary grazing occurs on tilled lands. For example, sheep often graze on cut grain after harvest.

A number of grains are dry farmed in the study area. Sorghum, wheat, barley, oats and hay are all grown in Moreno Valley, primarily south of Alessandro Boulevard and east of Lasselle Street.

Irrigated vegetable crops, including potatoes, green onions and radishes, are grown in the southern and eastern portions of the study area. Melons and oriental vegetables are also cultivated in small amounts. Some properties alternate vegetable and grain crops from season to season, depending on market conditions.

Approximately 355 acres of productive citrus and avocado groves remain within the study area, primarily in the northern and eastern sectors of the City. Approximately nine percent of the groves are avocados, with the remainder planted in citrus. Abandoned groves are also scattered throughout this area.

To provide an economic incentive to preserve agricultural lands, the State of California passed the California Land Conservation Act, commonly referred to as the Williamson Act, in 1965. Under this act, agricultural lands are taxed at their agricultural

value rather than their value for other higher valued uses. In exchange, the landowner enters into a contract with the local agency to retain his land in agricultural use for at least 10 years. The ten year contract is automatically renewed annually for one year at the end of the term; therefore, once a "Notice of Nonrenewal" is filed, it is ten years until the contract expires.

At present, 593 acres of agricultural land within the City limits are under Williamson Act contracts. The largest parcel measures 532 acres, and is located between Davis, Alessandro, Virginia and Forbes Streets. A notice of nonrenewal has already been filed for a small agricultural preserve area of 61 acres northwest of the Ironwood/Lasselle intersection.

It should be noted that the major agricultural enterprise within the Moreno Valley study area is not a commercial venture. The University of California Farm Station, located between Lasselle and Nason Streets and south of Brodiaea Avenue, encompasses 840 acres, and is by far the largest agricultural operation within Moreno Valley. Since 1960, the Farm Station has been used to raise experimental crops suited to dry and semi-dry African climates. Plots of jojoba, cereal grains, rubber, cotton, tomatoes, eucalyptus, lettuce and squash are cultivated. Half of the total acreage is cultivated per season. The Farm Station employs seven technicians. The University expects the Station to be a permanent off-campus fixture, although residential developments continue to press upon the facility.

#### C. OPEN SPACE LANDS FOR OUTDOOR RECREATION

The Moreno Valley study area is in close proximity to three major outdoor recreation areas. Box Springs Mountain Park and De Anza Cycle Park are located in the northwestern and northeastern portions of the study area, respectively, and are owned and operated by the County of Riverside as regional facilities. Lake Perris State Recreation Area, located within the southern portion of the study area, is owned by the State of California.

In addition to the major recreational facilities, there are presently several city-owned parks to serve the study area's residents. Further discussion can be found in the Community Resources Element.

#### d. OPEN SPACE LANDS FOR PUBLIC HEALTH AND SAFETY

Finally, substantial undevelopable acreage is generally limited to non-urban uses in the interest of public health and safety. These include drainage swales and boulder-strewn areas, and steep hillsides subject to sliding. In addition, the San Jacinto fault and the Casa Loma fault are located in the eastern portion of the study area. These open spaces generally overlap those reserved for resource protection and recreation.

## 2. ISSUES AND OPPORTUNITIES

Conversion of agricultural and other open space areas to urban and rural residential uses encompasses a number of issues. "Checkerboarding" and "leap-frogging" often occur when open space that is some distance from the urbanized core of the city is converted to residential or commercial uses. Leap-frogging can attract development to new areas in an untimely, inefficient manner. In such cases, the city may not be able to provide road capacity and public services commensurate with levels in the rest of the city. Leap-frogging can create premature development pressures on agricultural and natural open spaces that might better be reserved for other uses or future development.

Open space areas also offer opportunities with regard to urbanization. The study area's agricultural and natural open space provides Moreno Valley with the option to reserve greenbelts, buffer zones, and unobstructed views in many areas. Open space can provide recreational opportunities, including commercial recreation such as golf courses, cycle parks and equestrian facilities. Open space can be used to define the City's boundaries, creating a unified identity for Moreno Valley. Open space can also provide a low-investment means of handling



areas with drainage problems, unstable geologic conditions, and other obstacles to development, while retaining wildlife habitat areas, recreation opportunities and aesthetic values of the community.

The compatibility of agricultural uses with residential development is a recurring issue. The County's Agricultural Commissioner's Office finds that residential encroachment leads to conflicts. For example, agriculture often involves spraying pesticides from aircraft, slow moving farm equipment on local roads, dust, odors, and liability problems. Even though agricultural land uses predate the expanding residential uses, residents are often apprehensive of spraying practices and impatient with dust and traffic disturbances. In addition, farms often become "playgrounds" for children in nearby subdivisions, resulting in vandalism.

To minimize the danger of pesticide drift, the County Agricultural Commissioner's Office manages all pesticide use through an annual permit program. In areas with nearby development, permits are conditioned to require helicopter spraying, as helicopters can maneuver around homes and school bus stops. However, the other compatibility conflicts mentioned above are not as easily managed.

Currently, the University of California, Riverside Farm Station is experiencing the tension between urban and agricultural uses. Because the Farm Station is committed to its present site, operations have been modified to minimize spraying, dust, and traffic problems. While some pesticides are applied by aircraft, others are sprayed on the ground to minimize drift. However, other conflicts remain. The Farm Station has proposed that an undeveloped buffer zone be maintained around its acreage to protect its uninhibited use of the land, while at the same time protecting nearby residents from nuisances such as odors, dust and pesticide drift.

Cultivation of the grove areas within the study area also involves these same issues. While residents perceive the avocado and citrus groves as aesthetically pleasing and desirable open space, actively cultivated groves often require significant pesticide applications. In addition, these groves tend to suffer from varying amounts of vandalism damage.



The long term viability of agriculture is a community issue. Agricultural land use contributes a rural influence and atmosphere to the study area, which is appreciated by many residents. In addition, agricultural land use also buffers the Mount Russell Foothills/Lake Perris area from development which would impact hillsides and archaeological sites in the southern and eastern portions of the study area.

While many residents do not wish to see agriculture converted to residential use, the underlying cause of this conversion is primarily an economic one. Urban and rural residential uses presently offer greater profits because Moreno Valley's climate requires expensive irrigation, and crop market values cannot always cover land taxes and water costs. As a result, most agricultural properties are dry farmed for grains, and are viewed by their owners as "holding operations". These crops have low cash values, and require extensive land areas to support a viable farm. Farms of the type found in Moreno Valley cannot compete in the long run for land which is priced for urban uses.

The City's agricultural lands provide significant opportunities. Agriculture represents a productive interim land use for properties that will eventually be developed for urban or rural residential use. Present agricultural preserve areas may be used as a growth phasing tool if properly timed and located. Such preserves provide tax compensations to property owners who withhold their land from short-term conversion to more profitable urban and rural residential land uses.



## F. HISTORICAL AND ARCHAEOLOGICAL RESOURCES

### 1. EXISTING SETTING

#### a. THE BEGINNING

The early history of the Moreno Valley is that of the Indians who either inhabited or passed through the area. At the time of first European contact, the Moreno Valley area was apparently occupied by members of the Shoshonean Indian Group. Juan Bautista de Anza, a famous Spanish captain and explorer, is believed to have first entered the area during a 1775-76 expedition at the Bernasconi Pass (southeast side of Lake Perris) passing through the study area from the points which are now Lake Perris Dam to the current Interstate 215/State Route 60 interchange, on his way from Mexico to Northern California.

Upon the statehood of California in 1850, Moreno Valley was designated as public land, thus allowing pioneers to settle in the area, quickly displacing the Indians. The towns of Alessandro and Moreno were the first to be established as grain and fruit farming developed in the valley area. The area grew steadily with water being delivered by Bear Valley Land and Water Company via Big Bear Lake. Following formation of Riverside County in 1893, the town of Moreno competed with Riverside to be the County seat. However, during the mid 1890's a combination of increasing agricultural water consumption, drought conditions, and the demands of upstream water rights holders, cut off water supplies, and caused a massive exodus out of the Moreno Valley at the end of the 19th century.

It was not until the drilling of wells around 1921 that the area re-established itself. Development continued, encouraged by the activation of March Air Force Base in 1918, which was closed in 1922, but then reactivated in the early 1940's. During this period, the communities of Edgemont and Sunnymead evolved in the northwestern end of the Valley. The annexation of Moreno Valley into the

## POINTS OF HISTORICAL INTEREST



Eastern Municipal Water District further encouraged agricultural and urban growth by providing a reliable source of water and sewer treatment facilities.

With metropolitan growth from the Riverside and San Bernardino areas and growth from March Air Force Base, residential development in Moreno Valley has continued into the present period of transition from a rural to an urban community.

### b. ARCHAEOLOGICAL AND HISTORICAL SITES

Currently, there remain archaeological reminders of Moreno Valley's past. Numerous archaeological surveys have been conducted which have recorded over 100 archaeological sites within the Moreno Valley study area. The site records indicate the presence of a wide variety of historic and archaeological sites, including habitation sites, seed processing stations, and rock paintings and carvings. Although archaeological sites have been identified throughout the study area, the highest concentrations of sites occur along the slopes of the Mount Russell foothills area, Box Springs Mountains, and other associated slopes within the study area. All surveyed sites within the study area appear in Figure 27.

At present, only two identified historical buildings remain standing within the study area. In 1983, the Riverside County Historian's Office had identified at least 17 historical points of interest. However, rapid development of the area has led to the condemnation and destruction of the majority of the buildings and sites having historical significance.

The two historical buildings that remain in the City are the old Moreno School and the Moreno Valley Congregational Church. The Moreno School was built in 1893 on three acres of land at 28780 Alessandro Boulevard and later reconstructed in 1928. The Moreno Valley Congregational Church was the first church built in Moreno Valley, being constructed in 1893 at a site in the Moreno community and later moved to a site on Fir Street in the early 1900's.



The Moreno Valley Historical Society has targeted the two above mentioned historical sites for historical recognition. The church site continues to be used as an active church; however, the school site has been in a state of decline, and is presently used as a private residence. The Moreno Valley Historical Society's goal is to acquire the school site and restore it to its original grandeur. This would include a classroom restored to its original historical significance, a multi-purpose facility, and a park setting on the original school grounds.

## 2. ISSUES AND OPPORTUNITIES

As indicated on Figure 27, the primary locations of archaeological sites are found along the slopes within the study area. Development in these areas could result in the loss of cultural resources unless proper site reconnaissance is undertaken prior to construction activities. It is also possible, although to a lesser degree, that development along the valley floor could result in the loss of cultural resources.

As previously mentioned, rapid urban development has led to a loss of numerous buildings and sites of historical interest. A current inventory initiated by the Moreno Valley Historical Society in conjunction with the Riverside County Historian's Office, will be necessary to begin the process of identifying other structures and points which might be of historical value. Only after a proper and thorough inventory has been completed, can historical sites be evaluated for their historical, architectural, and local significance. Structural condition of such sites will also play an important role in weighing restoration efforts versus total loss of the historical structure.

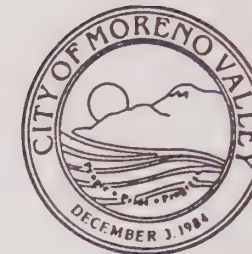
A point of historical interest study which potentially affects the study area has recently been conducted by the Riverside County Parks Department for the Juan Bautista de Anza National Trail. This study has proposed that the route that Juan Bautista de Anza traveled during his 1775-76 expedition be designated as a National Historic Trail. The study is complete, and is presently awaiting Congressional approval. A National Historic Trail does not identify



specific route alignments nor does it restrict land use; however, it is an attempt to encourage and promote local agencies to identify the alignment and keep it open as an important national and local cultural resource.



The City of Moreno Valley also has the opportunity to develop a working relationship with the University of California at Riverside's Archaeological Research Unit. Such a relationship would aid the City in understanding, identifying, and protecting the archaeological and cultural resources in Moreno Valley.

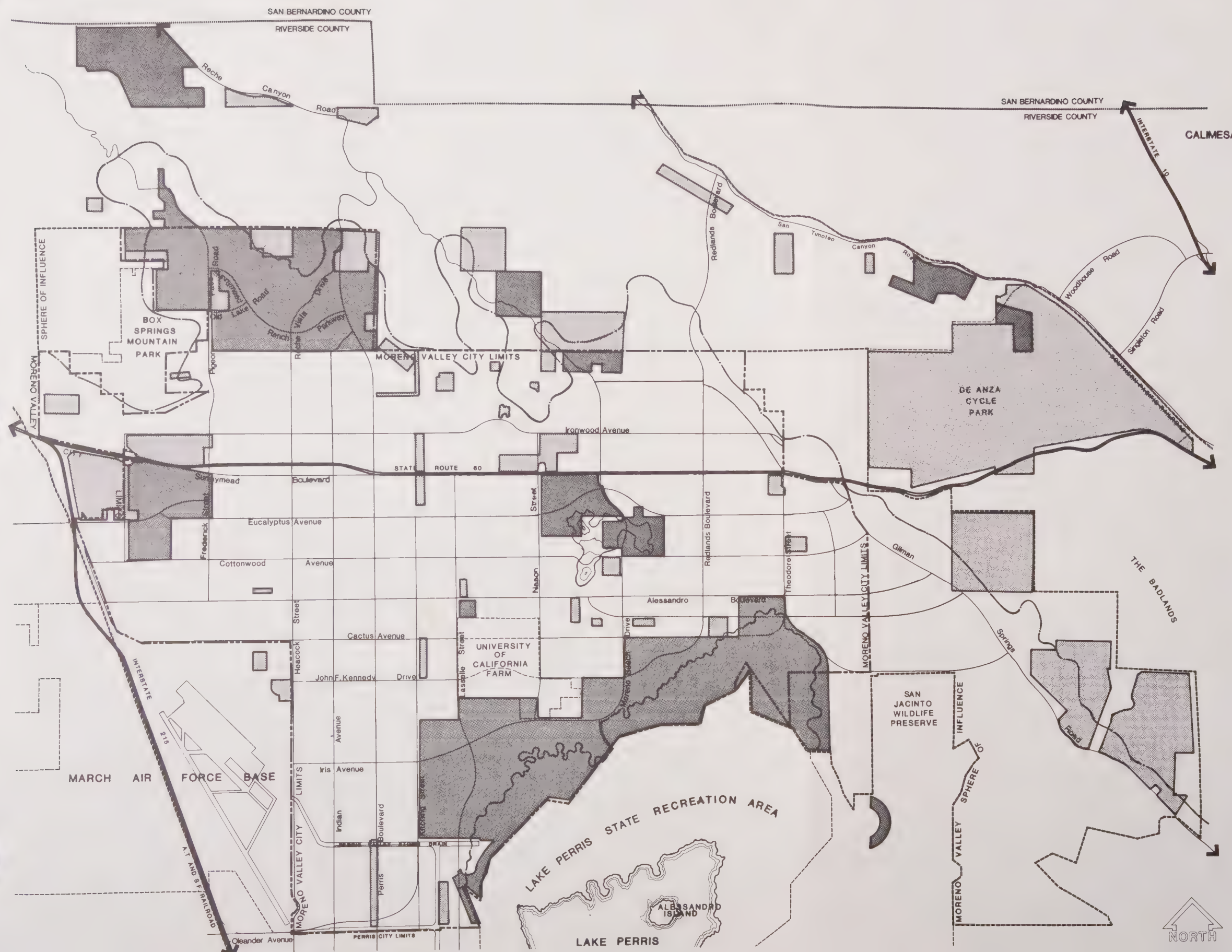
Currently, there are no National Register of Historic Places or other recognized landmark sites listed within the Moreno Valley City limits or sphere of influence. However, the presence of such historical or cultural resources within the study area cannot be ruled out until a systematic survey is conducted.



# ARCHAEOLOGY

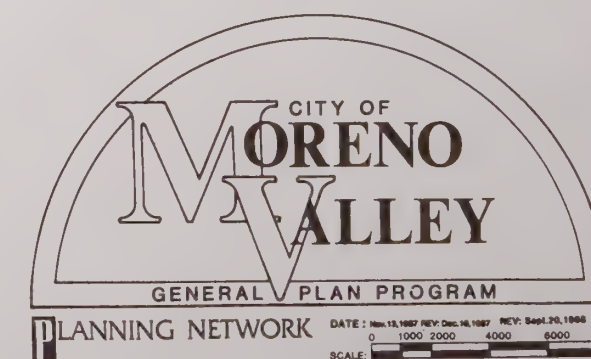
## LEGEND

-  SURVEYED AREAS - NO SITE LOCATED
-  SURVEYED AREAS - SITE LOCATED



Source: University of California Riverside

FIGURE 27





## G. SCHOOL FACILITIES

### 1. EXISTING SETTING

Moreno Valley's education system is evolving rapidly to keep pace with the City's population increase. A full range of educational opportunities ranging from kindergarten through junior college are, or will soon be, available within the study area. A total of ten school districts are found within the study area. Each of these districts will be discussed within the categories of elementary, middle, secondary, and junior college education.

#### a. ELEMENTARY EDUCATION

The Moreno Valley study area encompasses portions of seven districts which provide education facilities and services for kindergarten through grade five/six. These are:

- Moreno Valley Unified School District
- Val Verde School District
- Nuview Union School District
- San Jacinto Unified School District
- Beaumont Unified School District
- Colton Unified School District
- Riverside Unified School District

Moreno Valley Unified School District (MVUSD) covers roughly two-thirds of the study area, including most of the urbanized portion. Table IV-B summarizes current elementary school enrollments generated within the study area.



Table IV-B

## EXISTING ELEMENTARY SCHOOL ENROLLMENTS

Fall, 1986 District	Enrollment <sup>1</sup>
Moreno Valley	21,382 <sup>2</sup>
Val Verde	200
Nuview	N/A <sup>3</sup>
San Jacinto	N/A
Beaumont	N/A
Colton	N/A
Riverside	N/A

<sup>1</sup> Moreno Valley residents only.

<sup>2</sup> Does not include learning handicapped students nor independent study.

<sup>3</sup> N/A = not available for Moreno Valley residents

Source: All school districts listed.

The Moreno Valley Unified School District has experienced elementary student increases of about 70 percent annually in recent years. Seventeen schools were operational as of Fall 1986, with four more planned for Fall, 1989. These facilities are summarized in Table IV-C. MVUSD has created an "Annex School" at the Sunnymead School site to accommodate overflow enrollment from throughout the District.



Table IV-C

## MORENO VALLEY SCHOOL DISTRICT ELEMENTARY FACILITIES AND ENROLLMENT

School	Sept. 1988 Enrollment	Ultimate Capacity	Acreage
Armada	986	800	10
Arnold Heights	550	750	15
Badger Springs	492	500	10
Bear Valley (proposed)		725	9
Box Springs		700	10
Butterfield	728	500	20
Cloverdale	636	700	10
Creekside	761	750	10
Edgemont	708	750	15
Hendrick Ranch (proposed)		722	8
Honey Hollow	814	600	10.6
Midland	834	800	11
Moreno	1,075	600	10
Northridge (proposed)		725	6.5
Ramona	764	900	9
Serrano	895	700	7
Sugar Hill	806	450	10
Sunnymead *	580	1,500	20
Sunnymeadows	747	606	8
Valley View *	0	1,236	28
Vista Heights	618	500	20
TOTAL K-5	11,996		
* Joint Elementary/Middle School Facilities			

Source: Moreno Valley Unified School District

In recent years, MVUSD has opened a new elementary school every six months. Despite the several years of preplanning and financing that go into establishing a new facility, most new schools are at or near capacity the day they open. MVUSD copes with this overcrowding problem by adding temporary classrooms. Approximately 353 temporary classrooms are presently in use throughout the district. This strategy has resulted in an optimal classroom size, but has not alleviated the overcrowding of such school facilities as cafeterias, gymnasiums, libraries, and recreation space.

MVUSD reports that enrollments are growing most rapidly in the residential areas north of State Route 60. In past years, housing growth south of the freeway generated the majority of new students. In order to project student enrollment and plan appropriate facilities to come on line close to the time when new housing is occupied, MVUSD monitors residential construction plans and permits. MVUSD estimates, based on all housing in attendance areas, the following generation factors for elementary students: .45 for single family residences and .29 for apartment units. These factors are an average for all housing and the generation factors for new housing are actually greater.

MVUSD prepares and annually updates both five and ten year projections of enrollment and facility requirements. However, state funding programs allow school districts to seek funding for facilities needed to meet three-year advance projections. Since the funding process takes nearly three years from start to completion of a new school, the district (or districts) can only keep pace with new development. The funding system effectively prevents districts from constructing excess capacity to avoid overcrowding. MVUSD has plans for a new school every six months through 1989.

Val Verde School District accommodates elementary students from the study area who reside south of Gentian Street and west of Lake Perris. This jurisdiction includes the Moreno Valley Ranch adjacent to the Mount Russell foothills area. All the students from the 4,000-unit first phase would attend school in the District as it is presently defined. The District expects the development to generate 1,800 students, who will need three school facilities.

Nuview and San Jacinto Districts both serve the easternmost portion of the study area. Similarly, Colton Unified and Beaumont Unified School Districts handle a few elementary students from the north and northeastern portion of the study area. Enrollment projections for these four districts are not significantly influenced by development plans within the study area.

Riverside Unified District provides services and facilities to students in the Box Springs area west of the Moreno Valley City Limits.

b. MIDDLE SCHOOL EDUCATION

Most students attending grades six through eight within the study area are enrolled in the Moreno Valley Unified School District's six middle schools. Table IV-D summarizes their enrollments and capacities:

Table IV-D  
MORENO VALLEY UNIFIED SCHOOL DISTRICT  
MIDDLE SCHOOL ENROLLMENT

School	Sept. 1988 Enrollment	Ultimate Capacity	Acreage
Alessandro	942	1,200	20
Badger Springs <sup>1</sup>	696	1,500	13
Butterfield <sup>1</sup>	786	900	20
Sunnymead <sup>1</sup>	726	900	20
Valley View <sup>1</sup>	683	1,238	28
Vista Heights <sup>1</sup>	869	900	20
TOTAL 6-8	4,702		

<sup>1</sup> Facilities are part of joint elementary/middle school campuses.

Source: Moreno Valley Unified School District

In general, the middle schools have helped to ease elementary school overcrowding by including sixth graders in their programs. Generation rates for middle school students are less than half those for elementary school students. MVUSD, based on all housing in attendance areas, estimates that each new single family home generated .18 middle school students, in contrast to .08 for apartments.

Perris Union High School District provides middle school and high school facilities and services to graduating elementary school students in the Val Verde and Nuview Districts. At present, the District estimates only nine students from the incorporated portion of the study area attend Perris Valley Middle School, located on "A" Street south of Nuevo Road.

However, Perris Union High School District is exploring the possibility of a new middle school for 800-900 students on a site in the proposed Moreno Valley Ranch north of Lake Perris Dam. The District projects that the 4,000 homes in the first phase will generate 0.2 students per unit for grades 7 through 12. If the Moreno Valley District generation rates are applied to the project (first phase) approximately 560 middle school students can be expected to impact the Perris Union District. However, negotiations have indicated that such a middle school would not be built until the second phase of development, after considerable overcrowding occurs at the existing middle school. At present, the school is already over capacity, with 1,130 students in a facility designed for 928. Temporary buildings would be used to handle overflow classrooms. Colton, Beaumont, San Jacinto and Riverside Unified School Districts each accommodate a small number of middle school students from the study area.

#### C. HIGH SCHOOL EDUCATION

Moreno Valley Unified School District provides high school services and facilities to the vast majority of students from grades 9 through 12 within the study area. Three high schools, and a fourth just recently opened, handle 4,684 students, as indicated in Table IV-E.



Table IV-E

## MORENO VALLEY UNIFIED SCHOOL DISTRICT HIGH SCHOOL ENROLLMENT

School	Sept. 1987 Enrollment	Ultimate Capacity	Acreage
Canyon Springs	1,980	2,300	55
March Mountain	238	500	2
Moreno Valley	2,039	2,400	59
Valley View (9th only 1988-1989 school year)	427	N/A	45
<b>TOTAL</b>	<b>4,684</b>		

Perris Union School District handles 25 students from the incorporated portion of the study area at this time. These students attend Perris Union High School on the southeast corner of Perris Boulevard and Nuevo Road. The Warmington project, as currently proposed, may include a high school facility to handle up to 800 students that may be generated by 4,000 homes in phase one. A small 900-student facility is being tentatively discussed. According to the District, the existing high school is operating at its ultimate design capacity of 1900 students. No new facility can be expected for three to four years, as no new facility is yet under state funding.

Only very small numbers of high school students presently attend school in the Riverside, Colton, Beaumont and San Jacinto School Districts.

### d. JUNIOR COLLEGE AND COLLEGE EDUCATION

The study area is served primarily by the Riverside City Junior College District; the easternmost portion between Davis and Gilman Springs Roads is served by the Mount San Jacinto Junior College District.



Riverside City College presently offers classes to study area residents at the Riverside campus as well as at March Air Force Base and Moreno Valley High School. Approximately 3,000 students presently use 4,000 available enrollment spaces, as of Fall 1986. This enrollment is a 50 percent increase over Fall 1985. Moreno Valley facilities are currently used to capacity.

Plans for a full-fledged Moreno Valley Community College campus are now underway to accommodate the estimated 8,000 students that will reside in the area by 2000. The Warmington Company has donated a site northeast of Lake Perris which will ultimately accommodate 15,000 students. District proponents hope the campus will open by 1989; however, state approvals and funding negotiations lie ahead. Junior college capital funds have diminished sharply since Proposition 13, and it could take as many as three years to enter the State's funding cycle. The District has set up a non-profit Riverside Community College Foundation to raise funds to supplement state resources. Meanwhile, the Riverside Community campus is enrolled to capacity, and limited parking constrains additional commuting.

At present, no 4-year colleges are located in the study area. However, the University of California Farm Station, an experimental and educational facility for UC Riverside students and faculty, is located in the southern portion of the study area. The main UC Riverside campus lies approximately three miles west of the study area.

## **2. ISSUES AND OPPORTUNITIES**

As stated previously, the rapid rate of development experienced within the study area in recent years, the timing constraint of the state funding program, and the passage of Proposition 13 when combined with the size of the District, significantly affect the Moreno Valley Unified School District's ability to cope with the rapid enrollment growth that will take the formerly rural district up to 24,000-25,000 students in 1988-1989. To a lesser extent, these same issues and opportunities will also influence the other districts serving the study area.

Boundary issues are a shared concern. The Riverside County Superintendent of Schools is presently holding four-way discussions among the Moreno Valley, Perris Union, Val Verde and Riverside districts about possible boundary changes. By realigning boundaries to more accurately reflect city boundaries and distinguish between rural and developing areas, the Districts would slightly alter their enrollments, budgets, and ethnic composition.

Future differences could be substantial. In particular, Moreno Valley Unified, Val Verde and Perris Union are discussing moving their common boundary south to place the Moreno Valley Ranch project enrollment entirely within the Moreno Valley District. These discussions represent an opportunity to minimize bussing and to rationalize the boundaries, but may lead to greater ethnic and economic homogeneity within districts if enacted.

School funding is a serious concern to the school districts within the study area. To date, all of the several districts' expansion plans have been tethered to the State's funding program for new facilities. Proposition 53 proposes an \$800 million bond issue to generate additional funds for new facilities and the expansion of existing facilities. While state funds will continue to be the principal revenue source for facility construction, several optional or additional sources are also available.

New schools can now be built with funds raised by a Mello Roos Community Service District as an alternative to waiting for State funds. While this method allows maximum local control, it does not spread the burden of funding as evenly as other means. Local jurisdictions or their redevelopment agencies can also elect to build a school site at their expense and lease it back to the school district.

Two other sources of funds are also available. Developer fees are collected to offset the cost of new school facilities for developing areas. The State has proposed a limit on school fees of \$1.50 per square foot. This would effectively cap the City's ability to amass school construction funds from new housing. However, for the first time, state law now permits school fees to be assessed against new commercial and industrial development. It is also

important to note that developer fees have mainly funded the considerable cost of temporary classroom space, rather than permanent facilities. Also, developer contributions can be expected to diminish over time as the amount of developable residential land decreases.

State lottery proceeds provide another source of funds for a wide variety of uses. Although lottery funds may not be used for land acquisition or school construction, they may be applied to instructional needs. The Moreno Valley Unified School District and others serving the study area are using their lottery funds for salary enhancement, classroom materials, operation costs and school buses among other uses. Table IV-F recaps the lottery income for districts serving the study area.

Only Moreno Valley Unified School District spends all of its lottery funds within the study area. The district has allocated 60 percent of its lottery funds to the individual schools, retaining 40 percent for district-wide uses.

In addition to funding concerns, the Moreno Valley Unified School District also cites school siting as a major issue. The district's ability to negotiate for and acquire appropriate sites depends upon good information about proposed development as well as support from the General Plan in identifying future growth areas. Advance planning can help to avoid conflicting uses adjacent to schools. Heavy industries and heavy traffic-generating uses can compromise student health and safety.

Overcrowding itself is frequently cited as an issue. However, the school districts view the current situation as serious but temporary, noting that it is a symptom of the state funding system's failure to adequately address the needs of areas experiencing rapid growth.

Table IV-F

**SCHOOL DISTRICT LOTTERY ALLOCATIONS  
(JANUARY, MAY, SEPTEMBER, 1986 PAYMENTS)**

---

District	Amount
Moreno Valley	\$1,433,719
Val Verde	144,166
Perris Union	384,358
Nuview	58,924
San Jacinto	292,441
Beaumont	329,800
Colton	1,492,758
Riverside	3,295,546
Riverside Community College	1,012,888
Mt. San Jacinto Community College	<u>192,307</u>
<b>TOTAL</b>	<b>\$8,646,907</b>

---

Source: All listed school districts.





## H. RECREATIONAL FACILITIES

### 1. EXISTING SETTING

The City of Moreno Valley Parks and Recreation Department is responsible for maintenance of all City parks and recreational programs within the incorporated portions of the study area. The Riverside County Parks Department is responsible for Box Springs and De Anza regional park facilities. The California State Department of Parks and Recreation is responsible for the Lake Perris State Recreation Area (see Figure 28).

Currently, there are approximately 144 acres of City-owned park land within the City of Moreno Valley. About 112 acres are within community park sites, while 32 acres are within neighborhood park sites.

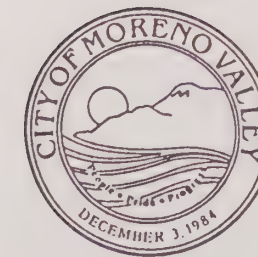
Existing developed parks include Moreno Valley Community Park, John F. Kennedy Veterans' Memorial Park, Sunnymead Park, Park El Moreno, Gateway Park, and Westin Park. In addition, there are three undeveloped park sites, including Morrison Park, Rio Hondo Park, and the Poorman Reservoir site.

Moreno Valley Community Park incorporates approximately 16 acres at the northeast corner of Cottonwood and Frederick Street, and consists of four regulation-size soccer fields, sheltered picnic areas, barbecue grills, restrooms, snack bar concession, playground area, and a large passive turf area.

John F. Kennedy Veterans' Memorial Park is located on a 10-acre site at the southwest corner of Indian Street and John F. Kennedy Drive, and includes four lighted tennis courts, picnic areas with barbecue grills and tables, playground area, and a softball field.

Sunnymead Park, a 16-acre community park located on the northwest corner of Perris Boulevard and Fir Street, includes four baseball fields, a covered picnic area, a bicycle motorcross track, horse arena, and a community center.





# OPEN SPACE AND RECREATION

## LEGEND

### PARKLANDS

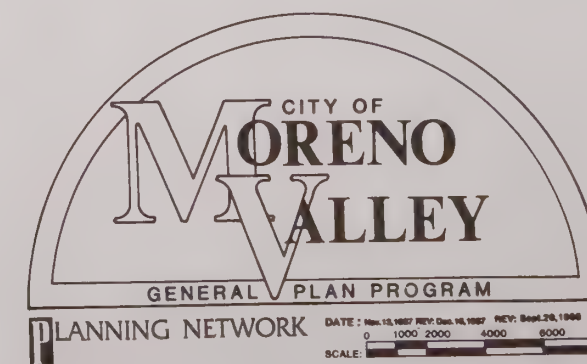
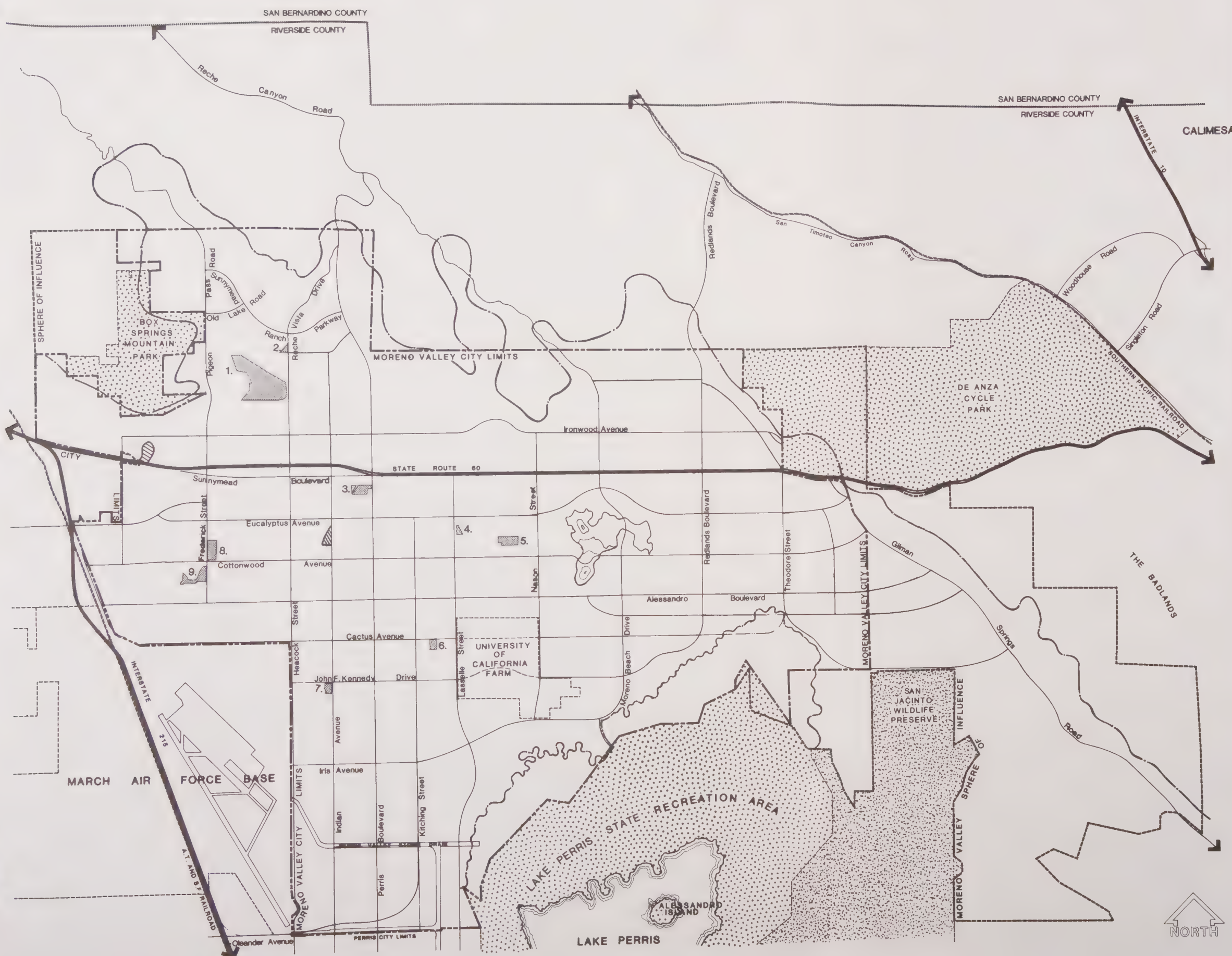
NAME	AREA	CLASSIFICATION *
1. POORMAN'S RESERVOIR	50 AC	C / U
2. GATEWAY PARK	7 AC	N / D
3. SUNNYMEAD PARK	16 AC	C / D
4. WESTIN PARK	5 AC	N / D
5. MORRISON PARK	14 AC	C / U
6. RIO HONDO PARK	10 AC	N / U
7. J F K VETERAN'S MEMORIAL PARK	10 AC	N / D
8. MORENO VALLEY COMMUNITY PARK	16 AC	C / D
9. PARK EL MORENO	16 AC	C / D

### OTHER

- REGIONAL RECREATION FACILITIES
- WILDLIFE PRESERVE
- OPEN SPACE PROPOSED FOR POTENTIAL PUBLIC USE

\* C - Community D - Developed  
N - Neighborhood U - Undeveloped

FIGURE 28







Park El Moreno is a 16-acre community park located on the northwest corner of Frederick and Bay streets, and includes a nine-hole, par-3 golf course and pro shop, park and recreation administrative office, and recreational hall with assorted table games, pool tables, ping-pong tables, and shuffleboard.

Gateway Park, a seven acre neighborhood park located at the northwest corner of Manzanita and Heacock Streets, features a small playground and passive park surroundings. Westin Park, also a neighborhood park site, provides passive recreational opportunities and a baseball field.

One of the currently undeveloped parks, Morrison Park, incorporates a 14-acre site immediately adjacent to Moreno Elementary School at the southeast corner of Morrison Street and the proposed Dracaea Avenue alignment. This park is slated for improvement as a community park and play area for the Moreno Elementary School students.

Other undeveloped sites include a 10-acre site located on the south side of Cactus, between Lasselle and Kitching, and the recently acquired Poorman Reservoir site in the northwestern portion of the City. The 10-acre Rio Hondo Park site is to be developed as a neighborhood park, while Poorman Reservoir will function as a community park facility for the residents of Moreno Valley.

Recreation programs currently provided by the City Parks and Recreation Department include youth and adult sports, senior citizen activities, and special interest programs. Youth sports include such activities as basketball, soccer, football, and baseball. Various adult sports activities include softball and tennis. Senior citizen activities offer weekday lunch programs, health clinics, paralegal service, and income tax assistance. Special interest programs include numerous classes such as tap and jazz dancing, gymnastics, day camps, aikido, teen canteen, and swimming lessons. Indoor recreational facilities used for the various programs include the community recreation hall (on Frederick Street between Cottonwood Avenue and Alessandro Boulevard), and the park annex building (on Graham Street north of the freeway).



Organizational groups in Moreno Valley that currently provide recreational opportunities include soccer associations, baseball leagues, softball leagues, football leagues, equestrian clubs, a swim team, and the Young Women's Christian Association (Y.W.C.A.). Moreno Valley also has a city-owned bicycle motorcross (BMX) track. Racing is currently scheduled for every Friday evening with possible expansion into Thursday night racing.

In addition to city parks and activities, Riverside County maintains Box Springs Mountain Park and De Anza Cycle Park. Box Springs Mountain Park is located approximately three miles north of State Route 60 west of Pigeon Pass Road. The park consists of 1,555 acres of open space and day-use facilities offering equestrian riding and hiking opportunities. De Anza Cycle Park is located approximately one mile north of State Route 60, on Theodore Street. This park consists of 4,100 acres, including a special use facility for off-highway vehicle operation, and also encompasses significant amounts of open space and agricultural land. In assessing current and future regional park needs, the Riverside County Parks Department utilizes a minimum standard of one developed acre per thousand regional population and twenty-five acres natural park acreage per thousand regional population.

The California State Department of Parks and Recreation maintains and operates the Lake Perris State Recreation Area. Located along the southern periphery of the Moreno Valley study area, the facility offers 8,300 acres of recreational opportunities including boating, swimming, fishing, hiking, bicycling, horseback riding, picnicking, rock climbing, and camping. The major feature of this recreation area is Lake Perris, the southernmost reservoir of the State Water Project. The lake has a low pool storage capacity of 85 acre feet and a high pool storage capacity of 110 acre feet. According to the State Department of Parks and Recreation, the Lake Perris Recreation Area currently receives approximately two million visitors per year, with approximately 70 to 75 percent of park visitors entering through Moreno Beach Drive.

Peak uses tend to occur between the months of April through September, and are largely influenced by the weather. During peak use periods, maximum capacity is generally reached, at which point the facility is considered full and closed to admittance. Maximum capacity for boating purposes is 450 to 500 boats (depending on lake elevation). The day-use capacity is determined by the 2,786 parking spaces, 431 family campsites, and six group campsites. Currently, there are no major plans for expansion of the state recreation area facility due to the limited area of the lake surface and land suitable for recreational purposes.

## 2. ISSUES AND OPPORTUNITIES

The National Recreation and Parks Association (NRPA) has set standards for the number, size, and type of parks and recreation facilities required to adequately serve a given community. By these standards, the City of Moreno Valley is currently experiencing a shortage of such facilities. Future population growth will further increase recreational needs and impact the existing facilities.

In order to meet the future needs of Moreno Valley residents, several types of recreational facilities, ranging from small tot lots and "vest pocket" parks to large park facilities and community centers will be needed. Basic criteria for the provision of public parks and specialized recreation facilities are shown on the following page in Table IV-G.

Table IV-G

## CRITERIA FOR PROVISION OF PUBLIC PARKS AND PRIVATE RECREATIONAL FACILITIES

### PARK FACILITIES

Classification	Acres/1000 Population	Size Range	Population Served	Service Area
Play Lots	(Not applicable)	2,500 sq. ft. - 1.0 ac.	500 - 2,500	Sub-neighborhood
Vest Pocket Parks	(Not applicable)	2,500 sq. ft. - 1.0 ac.	500 - 2,500	Sub-neighborhood
Neighborhood Parks	2.5 acres	Min. 5.0 ac. - 20.0 ac.	2,000 - 10,000	1/4 to 1/2 mile
Community Parks	2.5 acres	20.0 ac. - 100.0 ac.	10,000 - 50,000	Within 20 minutes driving time.
Regional Parks <sup>1</sup>	20.0 acres	250 ac. and larger	Serves entire pop- ulation in smaller communities.	Within 1 hour driving time.

<sup>1</sup>Regional park facilities are provided by Riverside County Parks Department.

### SPECIALIZED FACILITIES

Facility	Population	Comment
Baseball	1 per 6,000	Regulation 90 feet
Softball Diamonds and/or youth ball fields	1 per 3,000	
Tennis Courts	1 per 2,000	Best in groups of 4
Basketball Courts	1 per 500	
Swimming Pools (public)	1 per 10,000	
Skating Rinks	1 per 30,000	
Outdoor Theaters (non- commercial)	1 per 20,000	
Golf Courses	1 per 25,000	

**Neighborhood parks** normally serve a neighborhood population within a 1/4 to 1/2 mile radius. Generally, these parks are set aside for passive recreation such as walking and relaxation. The park normally requires five to fifteen acres; however, the size may vary depending on the size of the neighborhood and the proximity to a community park.

**Community parks** provide for a variety of active recreational opportunities such as outdoor organized sports and passive services for all age groups. Such activities normally require more space than a neighborhood park, and are typically designed to serve a population of 20,000 to 30,000. The suggested size requires an area of 15 to 20 acres with at least two-thirds of the area developed for active recreation purposes.

**Regional parks** meet those needs not served by state or national facilities, riding and hiking trails, and private recreational facilities. These parks are either relatively large (in excess of 250 acres), providing the impression of remoteness, spaciousness, diversity of use, and environment, or are small in size, and of historical, geographic, cultural or recreational interest to a broad spectrum of the population.

Currently, the City Parks and Recreation Department is experiencing pressures related to increased needs and a lack of senior citizen and community recreation centers. The existing recreation center (approximately 2,000 square feet) and Park Annex Building (approximately 600 square feet) are far below NRPA standards of one community center per 25,000 population. The NRPA standards further suggest that a recreation building contain a minimum of approximately 11,000 square feet of space, and that a senior citizens' complex encompass 1.9 acres including structures and open areas. Thus, a current shortage of such facilities exists within the City. According to the Moreno Valley Parks and Recreation Department, local school gyms are used in lieu of community recreation centers. However, school facilities can only be utilized on a limited basis due to increasing enrollment impacts on those facilities for educational and athletic programs. The new county library in Moreno Valley has currently set aside 4,000 square



feet of the facility for temporary senior citizen use. The current city population and future growth strongly support the development of senior citizen and community center recreation facilities.

Based on Table IV-G and projected area population, the City of Moreno Valley is deficient in park and recreation facilities at the present and will experience further deficiencies as population growth increases unless park acreage is significantly expanded. Developed park and recreation facilities, including the Park El Moreno Golf Course, account for only 77 total acres of parkland, which indicates a substandard provision of slightly more than one acre per 1,000 population. The City's population growth has increased sufficiently to support immediate and future development of neighborhood and community parks.

#### a. IMMEDIATE NEEDS ANALYSIS

Immediate needs for neighborhood and community park sites have been derived on the basis of an estimated current population in Moreno Valley of 80,000, and the National Recreation and Parks Association (NRPA) standard of 2.5 acres of neighborhood park land, and 2.5 acres of community park land required per 1,000 population. Based upon these criteria, total current acreage requirements have been calculated as follows:

80,000 / 1,000 = 80 x 2.5 = 200 acres total  
current acreage requirements per NRPA  
standards, for neighborhood and  
community facilities alike, or 400 acres  
combined

Subtracting the total acreage of public neighborhood and community parkland currently existing within the City, provides current acreage needs relative to the City's immediate need for park acquisition and compliance with NRPA standards.

200 acres - 32 acres existing  
neighborhood park acreage = 168 acres  
immediate need for neighborhood park  
facilities.



200 acres - 112 existing community park acreage = 88 acres immediate need for community park facilities.

Establishment of the boundaries for the neighborhood parkland immediate needs target area, as shown on Figure 29, takes into consideration the distribution and densities of the existing population within the City, the 1/2 mile maximum service radius requirement as stipulated by NRPA, the location, size, and distribution of existing neighborhood park facilities, and the current shortage of neighborhood park acreages within the City. The NRPA suggested size limitations for neighborhood facilities ranging from 5 to 15 acres, as well as the area constraints within the target area were also considered. In addition, the establishment of area boundaries was based upon the assumption that specific plan areas within the City adequately provide for the park and recreational needs of their residents at the neighborhood level, and the assumption that regional recreational facilities within close proximity to City boundaries provide no recreational benefit to City residents at the neighborhood level.

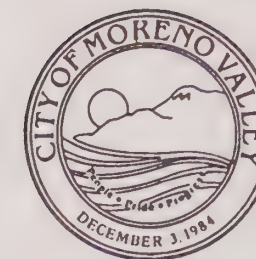
Based upon these considerations, and with respect to the neighborhood park site target areas as shown, twelve 15 acre sites or thirty-three 5 acre sites would be required to compensate for the current 168 acre deficit in neighborhood park land within Moreno Valley.

However, review of those portions of the target area which are currently not being serviced by a neighborhood park facility indicates, that, at best, 12 sites, each encompassing 15 acres, could theoretically be accommodated in the target area without significant overlaps in those service radii.

Therefore, although it is theoretically possible to meet the current neighborhood park needs of the existing population in conformance with the stated standards, from a practical point of view, given the perfect site distribution that would be required to avoid overlap in service radii, and given the logistics and inherent difficulties associated with any land acquisition undertaking in a largely built-out area, there will undoubtedly be a less than optimum distribution of facilities within the target area.







# COMMUNITY AND NEIGHBORHOOD PARKLAND IMMEDIATE NEEDS ASSESSMENT

## LEGEND

PARKLANDS		
NAME	AREA	CLASSIFICATION
1. POORMAN'S RESERVOIR	50 AC	C/U
2. GATEWAY PARK	7 AC	N/D
3. SUNNYMEAD PARK	18 AC	C/D
4. WESTIN PARK	5 AC	N/D
5. MORRISON PARK	14 AC	C/U
6. RIO HONDO PARK	10 AC	N/U
7. J.F.K. VETERAN'S MEMORIAL PARK	10 AC	N/D
8. MORENO VALLEY COMMUNITY PARK	16 AC	C/D
9. PARK EL MORENO	16 AC	C/D

## OTHER

- REGIONAL RECREATION FACILITIES
- WILDLIFE PRESERVE
- OPEN SPACE PROPOSED FOR POTENTIAL PUBLIC USE

C - Community D - Developed  
N - Neighborhood U - Undeveloped

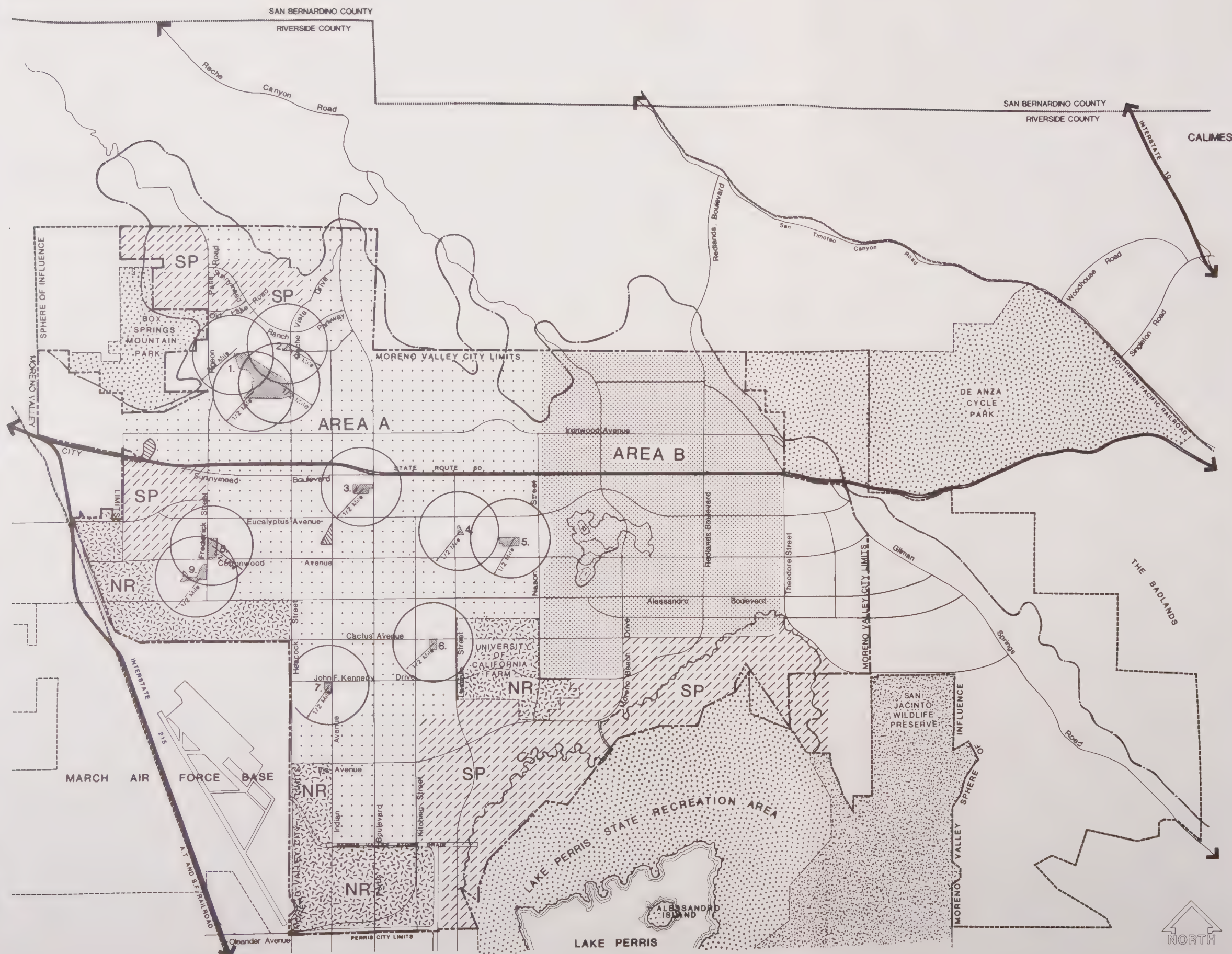
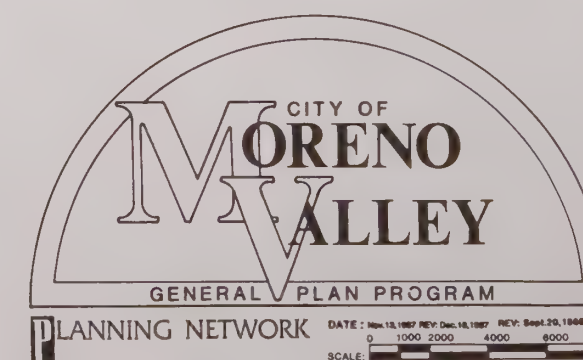
## IMMEDIATE NEED TARGET AREAS

- A AREA - A NEIGHBORHOOD PARKLAND
- B AREA - B COMMUNITY PARKLAND

## OTHER

- 1/2 MILE SERVICE RADIUS PER N R P A
- SP SPECIFIC PLAN AREAS
- NR NON - RESIDENTIAL AREAS

FIGURE 29







Without specific knowledge at this point as to the ultimate extent of any neighborhood park facility shortage, it can be stated that a shortage could be somewhat diminished by utilization of recreational spaces and facilities available at school sites by the residents within the 1/2 mile radius specified for neighborhood facilities.

Given the above, it is recommended that the City, at least in the short-term, concentrate its neighborhood park site acquisition efforts exclusively within the target area as delineated in Figure 29, in favor of the acquisition of sites for future need within outlying areas of the City. Such a priority will serve to diminish, to the greatest degree possible, the current shortage of neighborhood facilities within the most densely populated area.

It is further recommended, given the unlikelihood that optimum neighborhood park site acreages can ever be provided within the target area, that the City focus its acquisition efforts on the creation of service radii irrespective of ultimate compliance with NRPA acreage requirements and vigorously pursue the implementation of policies stated herein, as they relate to the joint ownership, financing, maintenance, and use of school recreational facilities and other public agency lands available for recreational use within the target area.

While the location and extent of the community park land immediate needs target area, also shown on Figure 29, was based upon similar considerations as was the neighborhood facilities target area, its delineation in an area outside of the neighborhood park target area was the product of the space constraints to neighborhood park site acquisition as discussed above and consideration of existing community park facilities in the west portion of the study area.

By taking advantage of the NRPA stipulated 20-mile driving time service radius for community park facilities, and targeting acquisition of community facilities outside of the neighborhood park target area, the magnitude of the existing constraints on neighborhood park site acquisition will not be increased.



Furthermore, targeting the acquisition of larger community park sites (20 to 100 acres per NRPA standards) in the less densely populated, outlying areas of the City, will facilitate and expedite the acquisition of such sites by the City at a more reasonable price than could be afforded in a more urbanized central location downtown.

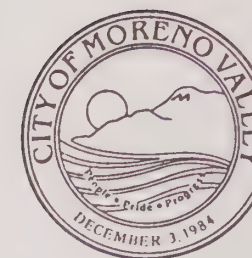
Finally, limiting the community park target area at its indicated eastern boundary takes into consideration not only the convenient access of City residents to be served, but also weighs the benefit of the open space areas to remain in hillside residential areas and the highly rural character of residential areas further east, as well as the concentration of such regional open spaces as Lake Perris Recreation Area, De Anza Cycle Park, San Jacinto Wildlife Preserve and Quail Lake Resort and Country Club.

#### b. FUTURE NEEDS ASSESSMENT

Future needs throughout Moreno Valley for neighborhood and community parkland were determined on the basis of population projections at total buildout, utilizing the anticipated number of residential dwellings of all types as permitted within each land use category and census data relating to the average number of occupants per household.

In the calculation of total acreage requirements at buildout for areas 1 through 6, as shown on Figure 30, the same criteria applied in the calculation of immediate acreage needs, 2.5 acres per 1,000 population, for both community and neighborhood facilities were used. Again, existing parkland acreages within the City were subtracted on an area by area basis for a total adjusted future need of 756 acres, 338 acres of which will be required in neighborhood parkland sites, with 418 acres required for community sites. Based upon the total future acreage needs as calculated, target area acquisitions were recommended on an area by area basis in the acreages shown on Figure 30. Although coinciding on a total acreage basis with future needs acreages, these recommended acquisitions differ on an area by area basis for various reasons.





# COMMUNITY AND NEIGHBORHOOD PARKLAND FUTURE NEEDS ASSESSMENT

LEGEND		PARKLANDS	AREA	CLASSIFICATION	OTHER
1	POORMAN'S RESERVOIR	50 AC	C/U		REGIONAL RECREATION FACILITIES
2	GATEWAY PARK	7 AC	N/D		WILDLIFE PRESERVE
3	SUNNYMEAD PARK	18 AC	C/D		OPEN SPACE PROPOSED FOR POTENTIAL PUBLIC USE
4	WESTIN PARK	5 AC	N/D		
5	MORRISON PARK	14 AC	C/U		
6	RO HONDO PARK	10 AC	N/D		
7	J.F.K. VETERANS MEMORIAL PARK	10 AC	N/D		
8	MORENO VALLEY COMMUNITY PARK	16 AC	C/D		
9	PARK EL MORENO	18 AC	C/D		

## FUTURE NEEDS AND ASSESSMENT

Area	Type	Total Theoretical Requirement at Buildout	Existing	Adjusted Future Need	Recommended Target Area Acquisition
1	AREA - 1	(C) 98 AC (N) 98 AC	50 AC 7 AC	48 AC 91 AC	0 AC 91 AC
2	AREA - 2	(C) 164 AC (N) 164 AC	40 AC 10 AC	124 AC 154 AC	0 AC 5 Sites at 15 AC Av.
3	AREA - 3	(C) 118 AC (N) 118 AC	22 AC 15 AC	96 AC 103 AC	0 AC 5 Sites at 15 AC Av.
4	AREA - 4	(C) 19 AC (N) 19 AC	0 AC 0 AC	19 AC 19 AC	19 AC + 135 AC 19 AC
5	AREA - 5	(C) 35 AC (N) 35 AC	0 AC 0 AC	35 AC 35 AC	35 AC + 130 AC 35 AC
6	AREA - 6	(C) 16 AC (N) 16 AC	0 AC 0 AC	16 AC 16 AC	16 AC 16 AC
SUB TOTALS (C)			112 AC	338 AC	
SUB TOTALS (N)			32 AC	418 AC	

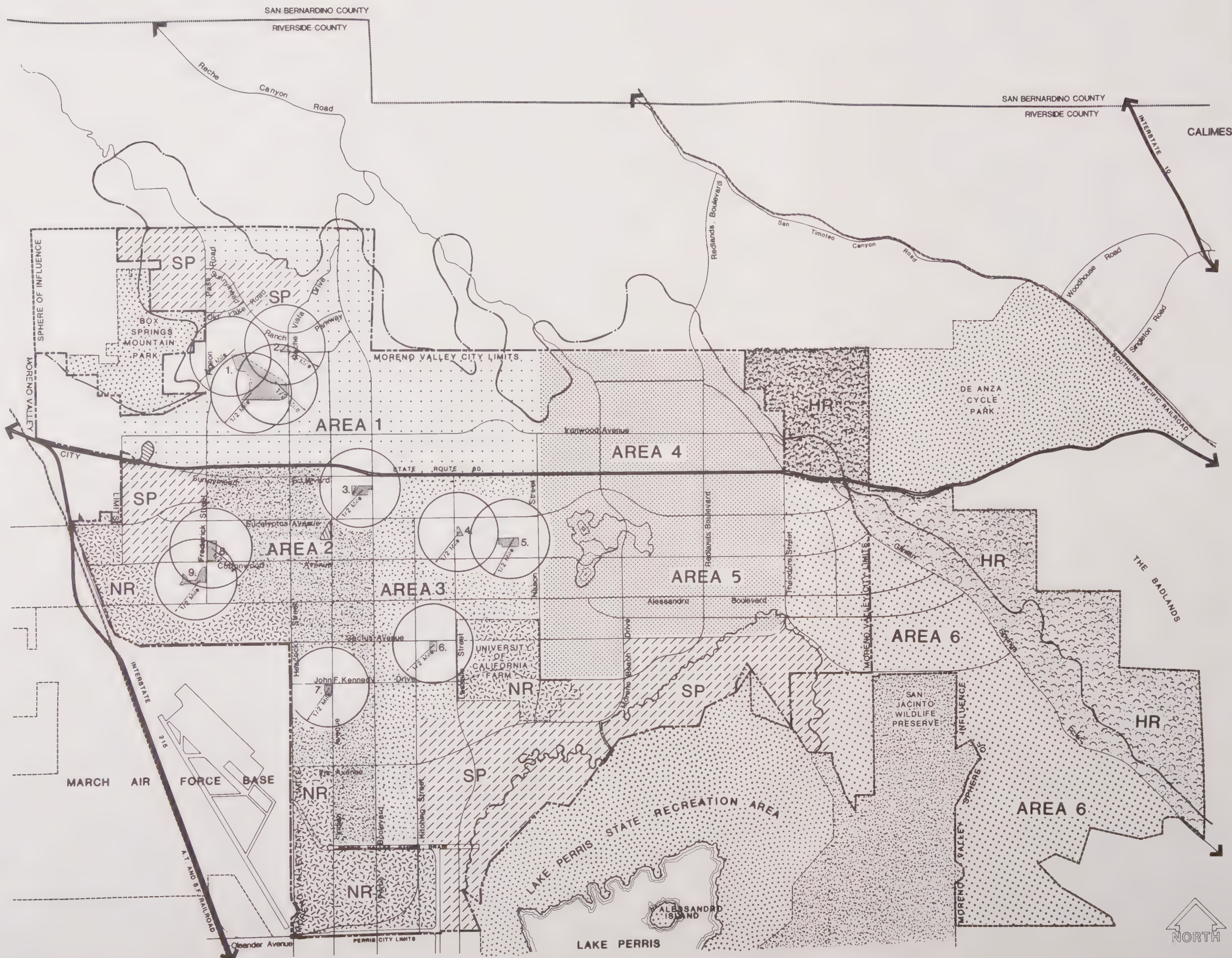
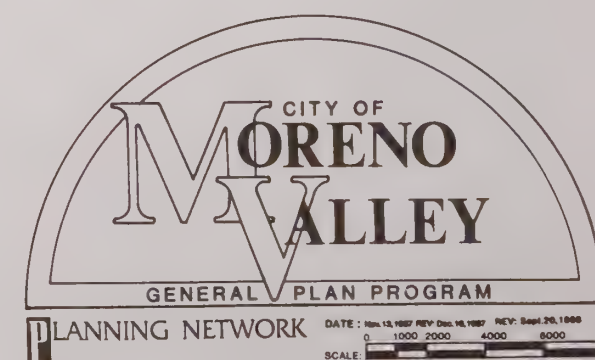
TOTALS 900 AC 144 AC 756 AC 756 AC

(C) Community Parkland  
(N) Neighborhood Parkland

## OTHER

- 1/2 MILE SERVICE RADIUS PER N R P A
- SP SPECIFIC PLAN AREAS
- NR NON - RESIDENTIAL AREAS
- HR HILLSIDE RESIDENTIAL

FIGURE 30







For example, community parkland acreages of 48 acres, 124 acres, and 96 acres required within areas 1, 2, and 3, respectively, are not recommended for acquisition within the boundaries of those areas, but instead are deferred for acquisition within areas 4 and 5. Although the populations within areas 1, 2, and 3 require community park acreage based upon the NRPA standard, acquisition is not recommended in order to avoid depletion of the already inadequate number of available neighborhood parkland sites. The exclusion of further community parksite acquisition within areas 1, 2, and 3 would not preclude provision of facilities consistent with NRPA standards. Furthermore, given the relatively undeveloped, rural character of areas 4 and 5, and the minimal population counts projected at buildout of these areas, the additional acquisition of community sites within these areas should not pose a significant problem in these areas, and in fact, will serve to facilitate the less expensive acquisition of community sites by the City.

Another area where discrepancies exist between calculated future acreage needs and recommended area acquisitions is relative to neighborhood park requirements for areas 2 and 3. Recommended acquisitions are less than the calculated need in these areas due to lack of suitable vacant sites and related constraints to acquiring neighborhood park sites in locations without overlapping service radii. The discrepancies shown reflect the unavoidable shortage in neighborhood park acreage that will necessitate alternatives to the provision of such facilities, such as recommended use of school site facilities.

In conclusion, it should be stated that to emphasize fulfillment of the City's immediate parkland needs as the highest priority, is in no way meant to understate the importance of implementing an on-going, long-term program of park site acquisition and improvement toward the provision of adequate open space and recreational facilities in pace with future growth for the benefit of future Moreno Valley residents within all areas of the community.

It should be noted, however, that the three previously mentioned undeveloped parks will be constructed in the near future and that at least two major approved planned residential communities, Sunnymead Ranch and Moreno Valley Ranch, are providing a combined total of over 100 acres of private recreational facilities. In addition, these two projects alone have provided approximately 100 acres of lakes and community clubhouses for project residents, reducing the need for provision of public park facilities within those planned communities.

The City's lack of a designated trail network system is yet another issue that has become a growing public concern. Rapid development and urbanization within the study area has encroached upon or eliminated many areas that have been traditionally used for hiking and equestrian use. Bicyclists and joggers in Moreno Valley also have found a lack of designated bicycle routes in which to safely and enjoyably travel through the City. However, as the City continues to grow, it can develop such trails and routes, using public rights-of-way, park facilities, possible agreements for shared access along existing utility, drainage, and private property easements, and land acquisition for rights-of-way. Hiking and riding trails should be designed with such considerations as: safety, accessibility, proper design and construction, signage, and relative location to the existing Riverside County regional trail system.

Expected population growth will also require several additional new specialized facilities including multi-purpose athletic fields (baseball, softball, soccer, football), tennis courts, handball courts, a public swimming pool, a senior citizen center, at least one community center, and a network of riding and hiking trails and facilities.

The primary method of acquiring lands for public park development is through dedications and fees collected from new residential developments. The Quimby Act allows local jurisdictions to require residential subdivisions to include dedication of lands for parks or the payment of fees in lieu of dedications. To make such a requirement, the local jurisdiction must first have adopted policies and standards for park provisions either in its General Plan or in an applicable specific plan. These



standards are included as part of objectives and policies of the Moreno Valley General Plan. The Quimby Act limits land dedication to three acres per 1,000 population unless the city has historically had more than three (3) acres of parkland per 1,000 population. The Quimby Act is generally limited to acquisition of park lands.

Local jurisdictions may also adopt parkland improvement fees. The City of Moreno Valley currently receives an annual parcel fee of \$20.00 per lot, through their community service district, Zone A tax (CSA #93). This fee was originally established by the County of Riverside for the *maintenance* of local public park facilities. After the incorporation of Moreno Valley, the fee became a city tax, thus being applied toward city park maintenance. No standard fee exclusive toward park *acquisition, construction and development* currently exists in the City of Moreno Valley, leaving only a portion of the City's public facilities fee for park acquisition, construction and development.



## I. LIBRARY FACILITIES

### 1. EXISTING SETTING

Library facilities in the City of Moreno Valley are operated by the Riverside City/County Library Department. Recently, a new 16,000 sq. ft. library building was constructed at the corner of Alessandro Boulevard and Kitching Street. This Riverside City/County facility opened in November 1986. For the first five years of use, 4,000 square feet of the building will be used as a senior citizens center, after which the library will expand into that area. The new library has special rooms for programs, meetings and public services, and will have the capacity for 50,000 volumes.

Library facilities in the City offer the following services: telephone and direct reference information, interlibrary loan and shared resources, shut-in services, programs for children and adults. The new facility also provides public typing, microcomputers, and microfilm services as well.

### 2. ISSUES AND OPPORTUNITIES

Expected future growth in Moreno Valley will require significant expansion of its present library facilities. Formulas for library size and costs have been prepared for libraries serving all population sizes. These are shown in Table IV-H. Based on these standards, the present City population of approximately 80,000 should have a minimum of 162,500 stock-volumes and 14,500 total square feet. Furthermore, future development within the study area will increase the population, thus requiring a significant expansion of the library service. Based on the pattern of residential development, an additional branch library will eventually be required.

Table IV-H

# FORMULAS FOR LIBRARY SIZE

Population size	Book stock-volumes per capita	No. of seats per 1,000 population	Circulation volumes per capita	Desirable first floor sq. ft. per capita	Desirable Total sq. ft. per capita
Under 10,000	3 1/2 - 5	10	10	0.5 - 0.7	0.7 - 0.8
10,000 - 35,000	2 3/4 - 3	5	9.5	0.4 - 0.45	0.6 - 0.65
35,000 - 100,000	2 1/2 - 2 3/4	3	9	0.25 - 0.3	0.5 - 0.6
100,000 - 200,000	1 3/4 - 2	2	8	0.15 - 0.2	0.4 - 0.5
200,000 - 500,000	1 1/4 - 1 1/2	1 1/4	7	0.1 - 0.125	0.35 - 0.4
500,000 & Up	1 - 1 3/4	1	6.5	0.06 - 0.08	0.3

Source: Joseph L. Wheeler and Herbert Goldhor, Practical Administration of Public Libraries (New York: Harper and Row, 1962) p. 554.



## J. SOCIAL SERVICES

The Community Development Element and the Five Year Housing Program, included herein as Sections V and VI, discuss the current status and needs of the elderly, handicapped, single parent households, families below the poverty level, those living in overcrowded or substandard conditions, and other special needs groups within the study area which warrant priority consideration in the development of social services programs.

In addition, objectives and policies within this section and the sections listed above, provide the basis for implementation programs that address the special needs of these groups in the form of informational, recreational, financial and various other assistance programs which go beyond the traditional regulatory mechanisms incorporated by the uniform building code or the City zoning ordinance.

Toward this end, the City further established its commitment to the expansion of such supplemental social service programs with the recent creation of a child care task force to study child care needs within the community. The policies herein as they relate to child care are the product of the recommendations as forwarded to the City Council by that task force.





## K. COMMUNITY AND CULTURAL RESOURCES ELEMENT OBJECTIVES AND POLICIES

### Objective 22.0

Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests (with some agriculture retained in long-term use), and provide for an orderly transition of agricultural lands to other urban and rural uses.

#### Policy Statements:

- 22.1 The City shall encourage agricultural open spaces as a compatible part of a rural residential atmosphere.
- 22.2 Grazing on open space should be considered a suitable agricultural use.
- 22.3 Valuable agricultural lands shall be protected against premature subdivision by adopting agricultural zoning and by encouraging use of the Williamson Act.
- 22.4 Agricultural use shall be encouraged within the Future Urban Development Area (see Figure 42) as an interim use until such time as its conversion is warranted as outlined in Policy 31.2.
- 22.5 Incorporate existing groves into the design of future development projects as primary landscaping, "natural" landscape statements, or passive open space.
  - a. Where groves are to be incorporated into future development, require that they be adequately maintained until such time as their ownership is transferred to the end buyer.
- 22.6 Require the incorporation of buffer areas into new urban and rural development where it is proposed adjacent to existing agricultural activities.

## **Objective 23.0**

Identify and preserve Moreno Valley's unique historical and archaeological resources for future generations.

### **Policy Statements:**

- 23.1 Preserve sites of significant historical, archaeological, and cultural value via application of planned development standards and other mitigation measures through the CEQA process.
- 23.2 Archaeological resources shall be located and preserved, or mitigated consistent with their intrinsic value.
- 23.3 Include as a condition of approval on all development projects the following: "If cultural resources are discovered during project construction, all work in the area of the find shall cease, and a qualified archaeologist shall be retained by the project sponsor to investigate the find, and to make recommendations on its disposition. If human remains are encountered during construction, all work shall cease and the Riverside County Coroner's Office shall be contacted pursuant to procedures set forth in Section 7050.5 of the Health and Safety Code."
- 23.4 Local prehistoric and historic structures or features which meet state or federal requirements should be registered in the Natural Registry of Historic Places.
- 23.5 The City shall encourage the retention of existing historic vegetation, mature street trees or public landscaping of cultural significance.
- 23.6 The City shall ensure that rehabilitation programs be carried out without damaging the integrity of historic structures by inappropriate alterations.



- 23.7 The City shall prohibit the demolition of any historic structure without an evaluation of the condition of the structure and the cost of rehabilitation.
- 23.8 The City shall encourage adaptive reuse of historic structures when change of use is the only alternative to destruction.
- 23.9 The City shall encourage the development of alternative building code requirements and their application as deemed necessary, on an individual basis, to preserve historic structures.
- 23.10 The land use designation for, as well as the land uses around historic structures should be consistent with the community's desire for preservation of those structures, and should not conflict with, or lead to the depreciation in value of those structures or their demolition.
- 23.11 Support and encourage efforts to have those historical buildings in Moreno Valley worthy of preservation, particularly the Old Moreno School located on Alessandro Boulevard and the Moreno Valley Congregational Church on Fir Street, designated as historical landmarks and restored.
- 23.12 The City shall support and encourage educational programs related to all phases of Moreno Valley's cultural and historical heritage.
- 23.13 The City shall recognize the historic significance of the original Moreno Townsite by the establishment of a Moreno Townsite Historical District. New construction or reconstruction within this historic overlay zone shall project a "turn-of-the-century" theme.
- 23.14 Community design adjacent to historic structures shall ensure that the historical integrity of the structure and its surroundings are preserved. "Community design" shall include building heights,

setbacks, proportion, patterns and rhythms of architectural details, roof types, projections, surface textures and colors, landscape treatment, as well as overall site design.

- 23.15 The City shall avoid wherever feasible the widening of roadways or the increase in traffic volumes on any roadway adjacent to historic structures which would jeopardize their historic integrity.

#### **Objective 24.0**

Ensure that all Moreno Valley residents have access to high-quality educational facilities, regardless of their socioeconomic status or location within the City.

#### **Policy Statements:**

- 24.1 The City shall consider the impact of all residential developments on the existing and future design capacity of affected educational facilities.
- a. Provide copies of all development proposals that may result in increased enrollments to the appropriate school district.
- 24.2 The City shall encourage an ongoing open liaison with all affected school districts via the periodic but regular provision of building activity reports and discussions of proposed school site design and its relationship with adjacent planned uses.
- a. Participate in the site review of all school facilities proposed within the Valley.
  - b. Participate in the review of the School District's five (5) year plans and provide comments regarding City and General Plan policy consistency.

- c. Encourage community involvement in the development of programs which protect school facility users from potential adverse conflicts.

24.3 All development approvals shall incorporate the following condition of approval: "Prior to the issuance of building permits, the project sponsor shall submit evidence to the City that all legally established school fees have been paid in full".

24.4 Where development proposals incorporate an area in which the affected school district is already impacted or over capacity, ensure that appropriate arrangements are made with the school district to mitigate the additional effects via requirements for additional dedication, formation of community facilities districts, or other forms of assistance permitted by State law.

24.5 All development proposals which may have an impact on the associated School District shall conform to Objective 51.0 of the Community Development Element.

#### **Objective 25.0**

Provide public recreation facilities and promote the provision of private recreational facilities.

#### **Policy Statements:**

25.1 Neighborhood parks shall serve as the day-to-day recreational areas of the City, should be within one-half mile radius of the population served, and should include such amenities as playgrounds, playfields, and grassy areas for passive recreation needs.

- a. Adequate pedestrian and visual access shall be provided to all neighborhood parks.

- 25.2 Community parks shall be within a 20 minute driving time for the residents they are intended to serve, and shall include such amenities as competition swimming pools, tennis courts, playfields for such activities as baseball, softball, soccer, and football, volleyball, racquetball courts, picnic areas, and a community recreation center.
- 25.3 The City shall employ a multifaceted approach in the financing and acquisition, development and maintenance of park land, including the financing of parklands through development fees, state and federal grant-in-aid programs, gifts and donations, benefit assessment districts, and the City's general fund.
- 25.4 The City should encourage and maximize opportunities for the joint use of public facilities such as schools, utility corridors, flood control facilities and channels, and areas under the jurisdiction of other public agencies that have available lands for recreational use.
- 25.5 The City should encourage agreements with the local school districts that would permit the joint ownership, financing, use, and maintenance of recreational facilities on or adjacent to school properties, as well as the location and development of park sites adjacent to school facilities to maximize recreational opportunities in Moreno Valley.
- 25.6 The City shall time the acquisition and development of its recreational facilities to coincide with the rate and pattern of residential expansion.
- 25.7 The conversion of designated recreational lands or parcels with potential recreational value to other uses should be discouraged without the provision of equally sized parcels within close proximity to the parcels being converted.





- 25.8 The City shall encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.
- 25.9 The City, in conjunction with the school districts, civic organizations, and other private, civic-minded entities, shall encourage and participate in the provision of organized recreational activities for Moreno Valley residents of all ages.

#### Objective 26.0

Provide a hierarchical system of trails which provides significant local opportunities for recreational equestrian riding, bicycle riding, and hiking, and that connects trails within the City of Moreno Valley with major regional trail systems.

#### Policy Statements:

- 26.1 The City's network of trails, including regional trails, community trails, and local feeder trails, shall be integrated with recreational areas, schools, residential and commercial areas, and equestrian centers.
- 26.2 The City shall establish an agreement with public and private utilities for the use and maintenance of utility corridors and rights-of-way for trail purposes.
- 26.3 All new development approvals shall be contingent upon trail right-of-way dedication and improvement in accordance with the Master Plan of Trails (Figures 30 A, B and C).
- 26.4 In conjunction with all development review, the City shall consider the dedication of prior existing pedestrian and equestrian trail access and traditional travel routes through the property.











- 26.5 In conjunction with the review and approval of nonresidential developments, the City should consider the use of amenities for equestrian and pedestrian activities such as hitching posts, benches, rest areas, and drinking facilities.
- 26.6 Trail construction should take into consideration the safety and convenience of the trail users as the primary concern.
- 26.7 The City should facilitate wherever possible development of a regional trail system, all segments of which should be available for use by equestrian and pedestrian users where feasible.
- 26.8 Given the character of existing vegetation, the configuration of the right-of-way, and the existing natural topography, the City's acquisition of trail rights-of-way should be based upon the following widths:
- |                     |         |
|---------------------|---------|
| Regional Trails     | 20 feet |
| Community Trails    | 15 feet |
| Local Feeder Trails | 10 feet |
- 26.9 Regional trails should connect to regional recreational areas, residential areas, and commercial areas.
- 26.10 Community trails should connect residential areas, local activity centers, and the regional trail system.
- 26.11 Local feeder trails should connect individual residential lots to the community and regional trail system.
- 26.12 The City should encourage programs for the improvement of existing trails, such as the removal of barriers on existing systems, for the purpose of providing an integrated trail network that is not only safe but functional and more accessible.
- 26.13 Materials and designs utilized in the construction of equestrian trails shall be in accordance with the standards included with these policy statements.



# MASTER PLAN OF TRAILS

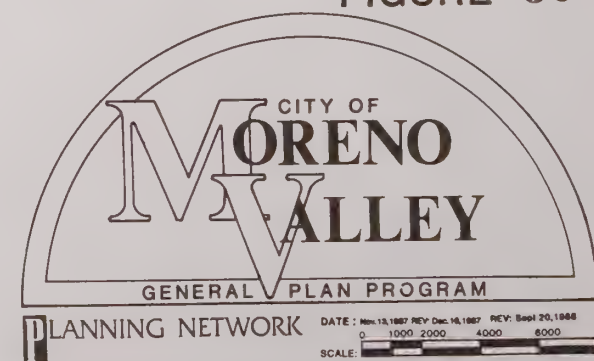
## LEGEND

-  CROSSINGS DESERVING SPECIAL CONSIDERATION - SUCH AS MARKINGS.
-  TRAFFIC SIGNALS OR CULVERT CONNECTION TO COUNTY/REGIONAL SYSTEMS
-  TRAIL ALIGNMENT/CONSTRUCTION COMMITTED BY DEVELOPER CONDITION OF APPROVAL OR OTHER AGREEMENTS
-  APPROXIMATE TRAIL ALIGNMENT NEEDED FOR LINKS TO COUNTY/REGIONAL TRAIL SYSTEMS. (SEE NOTE BELOW)
-  APPROXIMATE TRAIL ALIGNMENT NEEDING DETAILED STUDIES TO COMPLETE COUNTY/REGIONAL LINKS. (SEE NOTE BELOW)
-  CONCEPTUAL TRAIL ALIGNMENTS AS APPROVED BY CITY COUNCIL, 9/20/88
-  REGIONAL RECREATION FACILITIES
-  WILDLIFE PRESERVE

NOTE: DEDICATION & IMPROVEMENTS SHALL NOT BE IMPOSED ON DEVELOPMENT PROPOSALS ALONG TRAIL SEGMENTS UNTIL A PRECISE ALIGNMENT HAS BEEN ADOPTED BY THE CITY COUNCIL

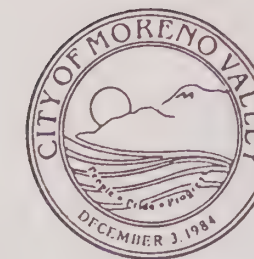


FIGURE 30 A



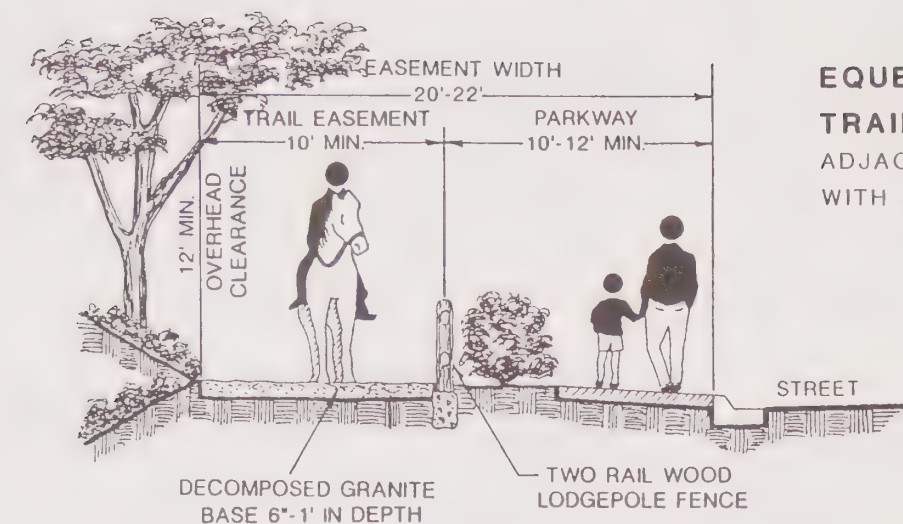






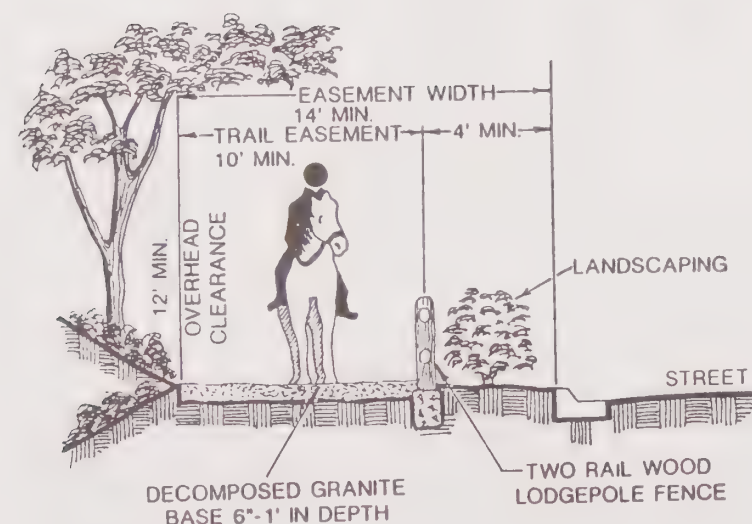
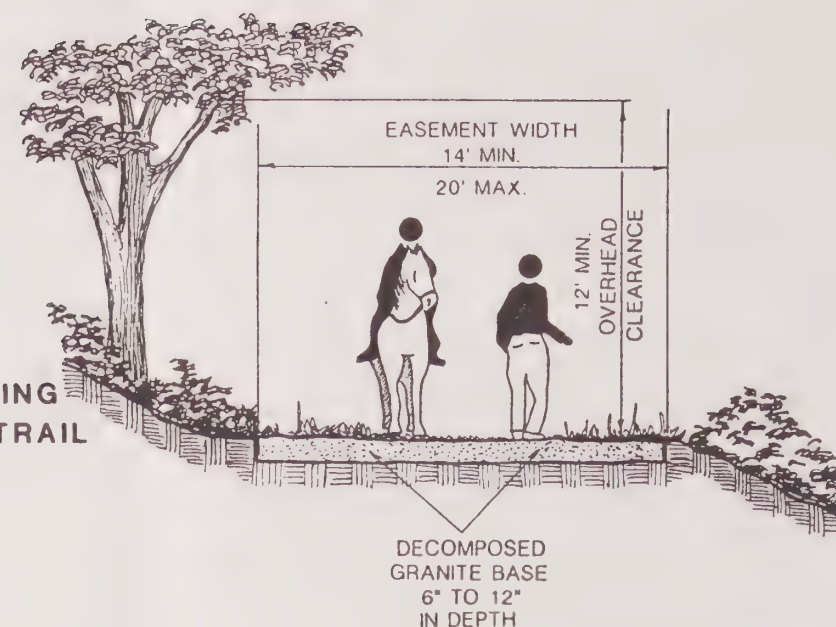
# EQUESTRIAN STANDARDS

SOURCE: Moreno Valley Equestrian Committee



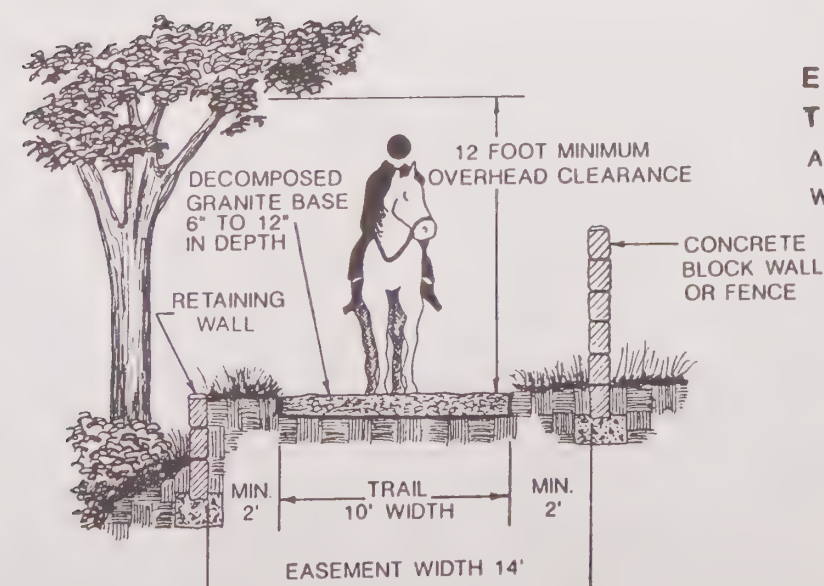
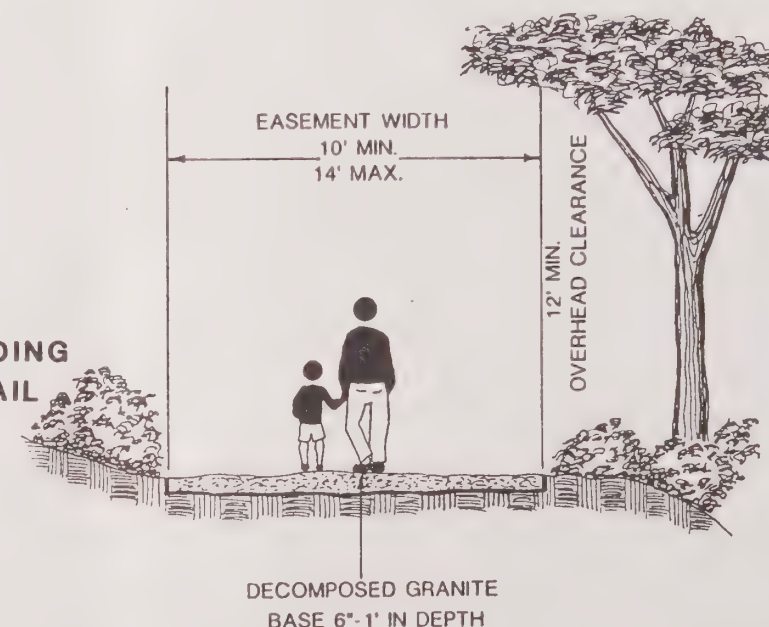
**EQUESTRIAN TRAIL EASEMENT**  
ADJACENT TO STREET  
WITH SIDEWALK

PRIMARY RIDING  
AND HIKING TRAIL  
STANDARD



**EQUESTRIAN TRAIL EASEMENT**  
ADJACENT TO STREET  
WITHOUT SIDEWALK

SECONDARY RIDING  
AND HIKING TRAIL  
STANDARD



**EQUESTRIAN TRAIL EASEMENT**  
ADJACENT TO FENCE/ BLOCK  
WALL/RETAINING WALL

**EQUESTRIAN TRAIL EASEMENT**  
TRAIL & BIKEWAY  
COMBINATION

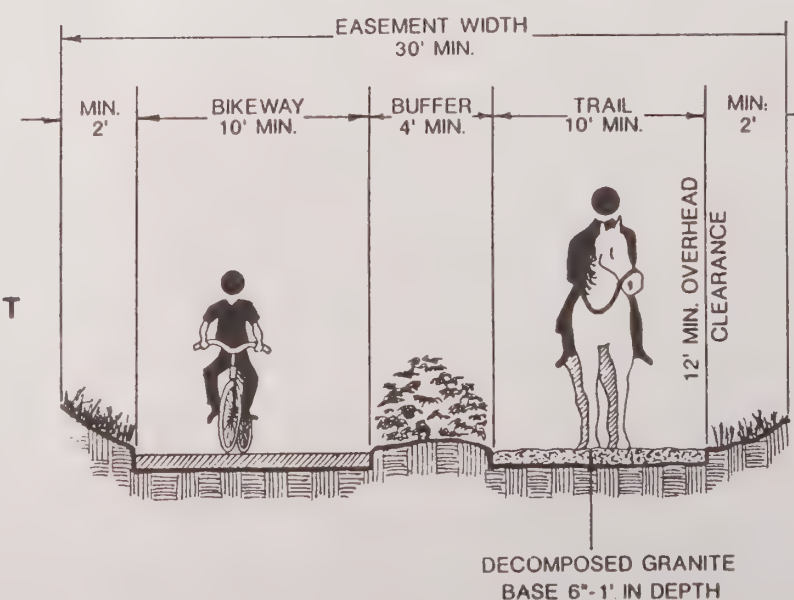
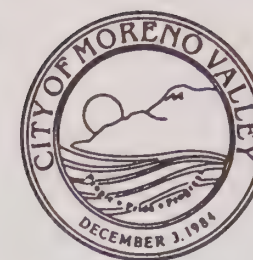


FIGURE 30 B

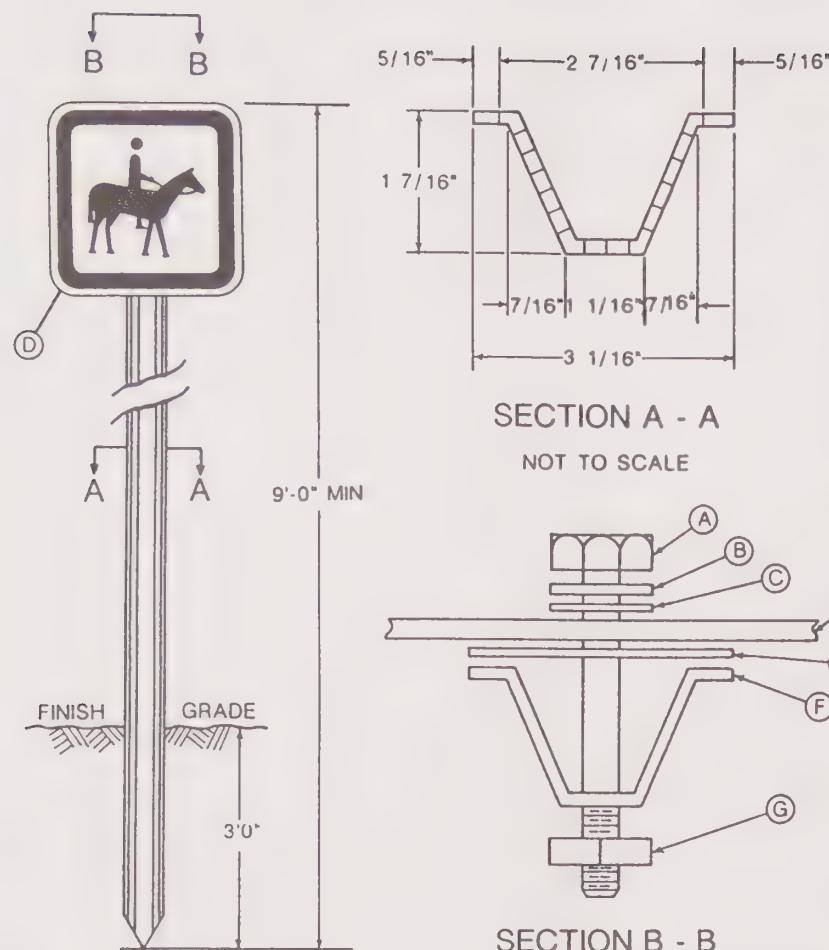






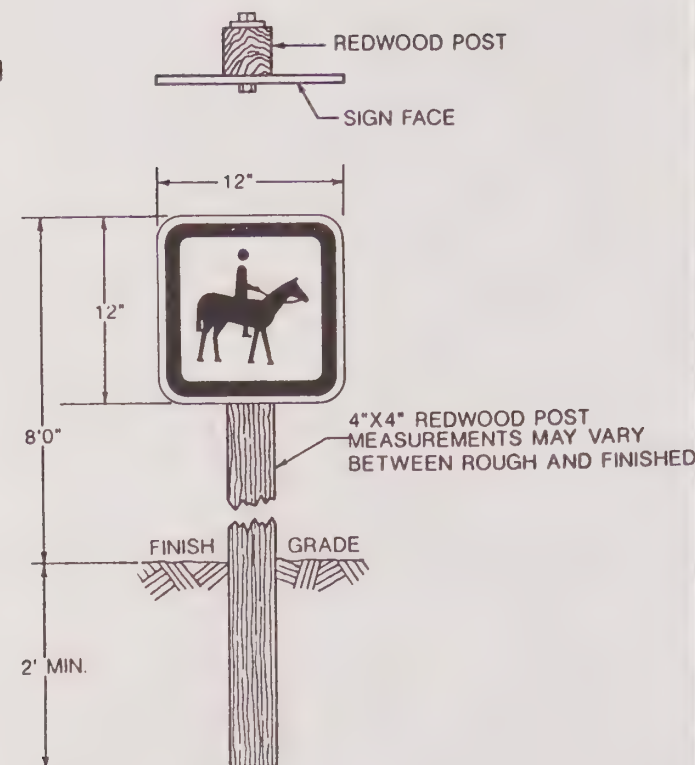
# EQUESTRIAN STANDARDS

SOURCE: Moreno Valley Equestrian Committee



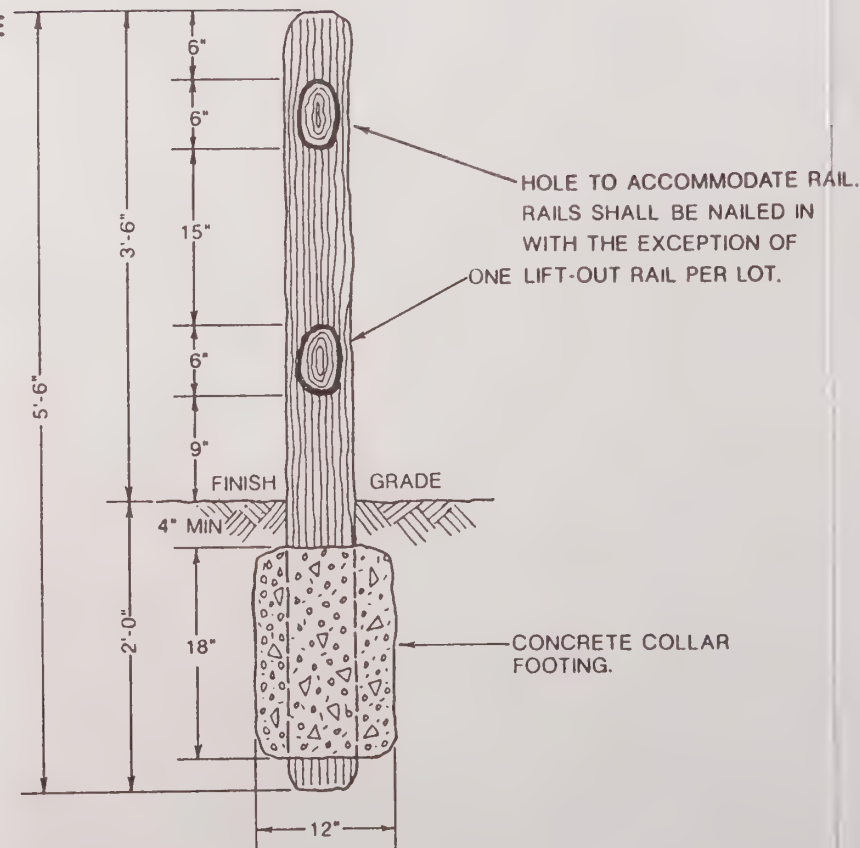
EQUESTRIAN TRAIL SIGN  
WOOD POST

EQUESTRIAN TRAIL SIGN  
METAL POST



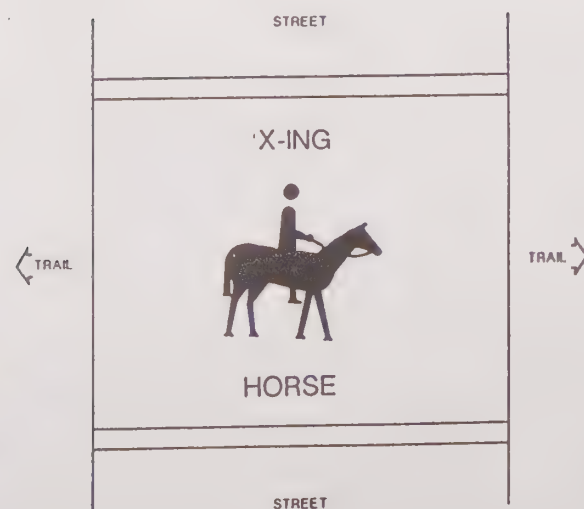
LODGEPOLE FENCE  
TWO RAIL

A	5/16" X 2 1/2" HEX HEAD BOLT	E	3 1/4" X 2 1/2" 0.080 ALUM. SPACER
B	WASHER	F	"U" CHANNEL POST
C	FIBER WASHER	G	5/16" NUT
D	SIGN, RS-064, HORSE TRAIL SIGN, 12" X 12" OR 8" X 8".		

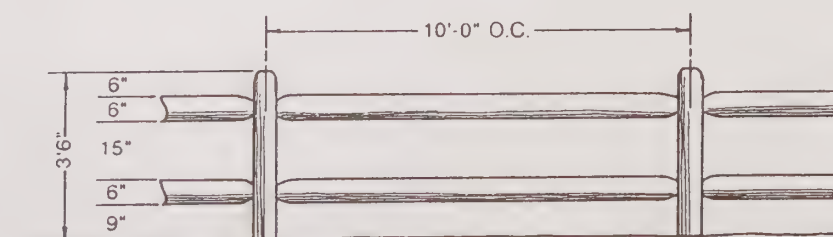


TWO RAIL LODGEPOLE FENCE  
SECTION

HORSE CROSSING  
PAINTED ON STREET

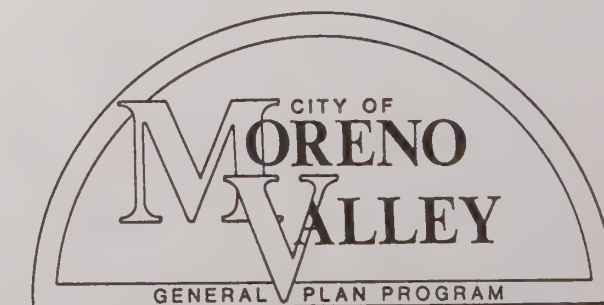


LODGEPOLE FENCE  
TWO RAIL



TWO RAIL LODGEPOLE FENCE  
ELEVATION

FIGURE 30 C





#### **Objective 27.0**

Maintain local library facilities and reserves in accordance with the interim standards of the American Library Association.

##### **Policy Statements:**

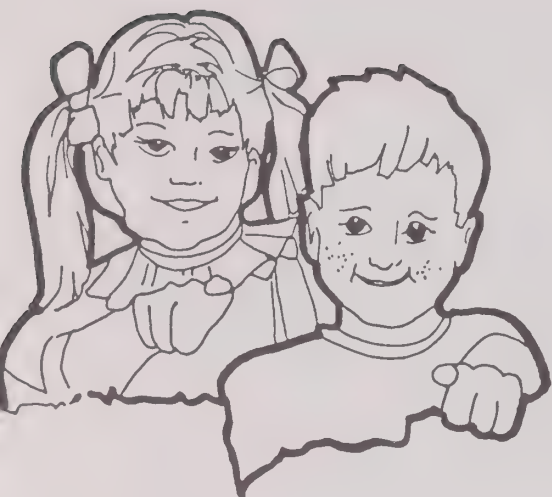
- 27.1 The City shall encourage inter-library loan agreements with the County library system and those of surrounding cities to provide the widest possible variety of materials to library patrons.
- 27.2 The City shall ensure the expansion of library facilities, in accordance with American Library Association standards, as needed to keep pace with the growing population of Moreno Valley.

#### **Objective 28.0**

Provide cultural facilities, including history (natural, cultural and childrens) and art museums and performing arts facilities.

##### **Policy Statements:**

- 28.1 The City shall promote the development and construction of a civic/cultural center. The location, design, and relationship of the facility to its surroundings should symbolize the City of Moreno Valley's identity.
- 28.2 Design of the center should be such that beyond the historical and cultural aspects, it will also function as a community center and focal point for various types of community oriented activities, be they privately or publicly financed.



#### Objective 29.0

Promote social services programs which meet the special needs for child care, the elderly, and the handicapped.

##### Policy Statements:

- 29.1 The City shall take an active role in developing child care policies and programs for residents and employees in Moreno Valley.
- 29.2 The City shall encourage family day care homes through zoning policies, including broad definitions and flexible standards.
- 29.3 The City shall work with the Moreno Unified School District and private sector employers toward the development and implementation of extensive child care programs to service the needs of area residents and workers.
- 29.4 The City shall support the efforts of the County of Riverside Public Social Services Department toward meeting the needs of the elderly.
- 29.5 The City shall support and encourage the development of senior citizens independent living and congregate care facilities in locations with convenient access to social, transportation, commercial, and medical services.
- 29.6 The City shall support and encourage the development of housing which is accessible to the physically handicapped.
- 29.7 Handicapped ramps shall be incorporated into all curb and sidewalk designs within the City of Moreno Valley.





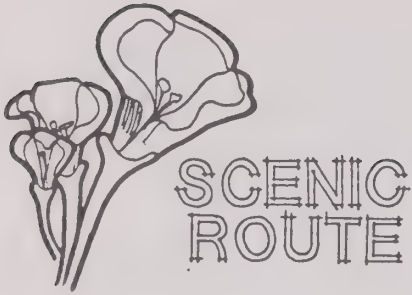


## Objective 30.0

Preserve significant visual features which are within, or are visible from the City of Moreno Valley, as well as significant views and vistas within the City.

### Policy Statements:

- 30.1 The City shall disapprove development directly upon a prominent ridgeline.
- 30.2 Views of surrounding mountains shall be preserved by encouraging low-profile development patterns, and by requiring new electrical and communication lines to be placed underground.
- 30.3 Outdoor signs should not detract from the natural beauty of the surrounding environment. The size of signs should be the minimum size necessary to provide information; emphasize natural materials; and should be designed, colored, and located so as to blend with the surrounding natural and manmade environment.
- 30.4 Pigeon Pass, Ironwood, Gilman Springs, Redlands (North of State Route 60), Moreno Beach, Davis (Between State Route 60 and Gilman Springs), and State Route 60 shall be designated as local scenic roads.
- 30.5 Land uses within designated scenic road corridors shall be designed in such a manner as to be compatible with the aesthetic values of those corridors.
- 30.6 The construction and reconstruction of scenic roadways shall be engineered to enhance views of the surrounding mountains and protect other significant scenic vistas, by providing view corridors where attractive views exist, and by encouraging the development of vista points with interpretive displays, roadside rests, or information kiosks where appropriate.



- 30.7 Circulation patterns within newly developing portions of Moreno Valley, particularly in hillside areas, should follow natural contours, thus requiring a minimum of grading.
- 30.8 The City shall work with Caltrans to landscape and maintain the borders of Interstate 215 and State Route 60, and to provide view corridors where attractive views or the potential for attractive spaces exists.

## L. IMPLEMENTATION PROGRAMS

1. Utilize the Williamson Act and/or other techniques that may be available for the preservation of open space and agricultural lands against premature development.
2. Adopt a "Right-to-Farm" ordinance, protecting existing agricultural operations, which operate in a healthful manner, from nuisance related lawsuits.
3. Amend current zoning regulations to establish a Moreno Townsite Historical District, including provisions that ensure that new construction and reconstruction within that district reflect turn-of-the-century architectural theme.
4. Solicit assistance from the Moreno Valley Historical Society in the development of educational programs relating to all phases of Moreno Valley cultural and historic heritage as it exists today (i.e. dance, theater, arts and craft, music, etc.).
5. Implement tax advantage programs where appropriate for the maintenance and rehabilitation of historic structures and properties.
6. Begin processing the Moreno School and the Moreno Valley Congregational Church, and other buildings of historic significance as nominations for listing in the National Register of Historic Places.
7. Adopt a major financial assistance program to extend low interest financing to owners of historic property and buildings, and consider providing other assistance such as architectural, financial planning, and planning and preservation services as well.
8. Review existing variance procedures and processes, and amend zoning regulations to provide for the maximum utilization of historic properties undergoing rehabilitation or expansion.

9. Develop a Design Plan for the Moreno Townsite District to coordinate rehabilitation efforts into a cohesive design, and promote economic growth in that district.
10. In areas where archaeological or paleontological resources are known or reasonably expected to exist, based upon the city-wide survey conducted by the UCR Archaeological Research Unit, utilize the recommendations and determinations of Table 2 of the written findings of that report to reduce potential impacts to levels of insignificance.
11. Complete a survey of historic resources as a complement to the scope of the UCR survey referenced in number 10 above, emphasizing survey of "built environment sites" and significant resources excluded by that survey. A resource shall be considered of significant cultural value if it possesses one or more of the following characteristics:
  - a. It exemplifies or reflects the broad cultural, political, economic or social history of the nation, state, county, or local community.
  - b. It has yielded or has the potential to yield information important in history or prehistory.
  - c. It is representative of one of the diverse styles and variations of residential and commercial architecture found in the City, whether vernacular or a work of identifiable artisans, master craftsmen, builders, or architects important locally or with wider significance.
  - d. It is an object of significance because of its design or pleasing appearance in a setting.
  - e. It is a site or structure that is important to the history of the community.
  - f. It is a surviving site, route or structure important to the early settlement, economic origins, or technological development of the locale.



- g. It is a grouping or set of structures, historic sites or features, design components, natural features and landscape architecture, or other interesting details, which together create an exceptionally rich historic or cultural ambiance.
  - h. It is a hill, geologic formation, body of water, arroyo, remaining natural vegetation or other striking or familiar physical characteristic that is important to the special character, historic identity or aesthetic setting of a community.
- 12. Adopt alternative building code requirements in the form of a Historic Building Code for historic structures, and maintain appropriate legislation to apply those alternative requirements as deemed necessary on an individual basis to preserve historic structures.
  - 13. Investigate the feasibility of establishing Community Facilities Districts, using redevelopment funds to facilitate the acquisition and development of school sites.
  - 14. Create a ridgeline trail system.
  - 15. The City should initiate and maintain a close working relationship with the local school authorities in the development of programs that provide for the joint use of open spaces that are part of the school campuses and available for day-to-day recreational use. While these spaces may seem small in terms of the City's immediate needs deficiency, they can satisfy some of the needs where other recreational facilities are absent and where securing such area would involve the removal of residential uses and relocation of the occupants.
  - 16. Initiate and maintain park dedication requirements and an in-lieu fee schedule in accordance with the provisions of the Quimby Act.

17. Urge local school districts to begin a coordinated program with the City Park and Recreation Department to acquire land for joint school park sites within the neighborhood parkland immediate needs target area shown on Figure 29.
18. Develop a specific plan of parks within the neighborhood parkland immediate needs target area shown on Figure 29, and begin acquisition and implementation proceedings as soon as possible.
19. Encourage the Riverside County Parks Department to develop an additional regional park within the Moreno Valley study area.
20. Begin immediate construction of an additional community park to meet active recreation needs of the City.
21. Initiate a study to determine the feasibility, liability, cost, etc. of a joint effort with County Flood Control, toward the conversion and utilization of existing and future retention basins for recreational use.
22. Work closely with Riverside County Parks Department in its open space program to ensure that trail systems within Moreno Valley effectively link open space components, and that the city's approval of development proposals represent logical steps toward attaining the goals of the entire planning area.
23. Adopt new regulations, or amend the existing Subdivision Ordinance to provide for dedications of open space areas for linkages, schools, parks, etc.
24. Pursue various sources of funding toward the implementation of a combination hiking and bridle trail plan.

25. The City should encourage the local phone company, as a public service, to devote space in the directory for a description of the community, highlighting points of interest such as historic and cultural buildings, and sites, annual events, tourist services and facilities and possibly a short community history.
26. Fund a position for Child Care Coordinator responsible for implementing city child care policies.
27. Adopt an ordinance requiring developers to set aside space/money for child care programs or facilities.
28. Make provision for the lease of City land to child care providers.
29. Offer child care options through a benefit plan to City employees.
30. Initiate an assessment of the child care needs of Moreno Valley and implement comprehensive programs to meet those needs.
31. Establish regulations regarding the inclusion of child care facilities within employment generating uses.
32. Disseminate local child care resource information and provide referral service to the residents of Moreno Valley.
33. Expand the use of demand-response public transportation facilities, such as the mini-bus or dial-a-ride systems in order to more effectively facilitate the transportation needs of the elderly.
34. Pursue funding under California Regional Medical Programs for the 24-hour use of Medi-trans for emergency service, as well as regular appointments, to facilitate the transportation needs specifically of the handicapped and elderly.
35. Encourage employers within the Moreno Valley area to hire the elderly and the handicapped.

36. Prepare a City information brochure identifying available social services and facilities.
37. Evaluate existing social programs under the City's purview, and determine if they adequately address the needs of the aged and the handicapped.
38. The City should encourage the local phone company to devote space as a public service to the elderly, handicapped, and parents in need of child care for pertinent information regarding child care facilities, the location of medical care facilities and information regarding public transportation.
39. Initiate programs and the construction of additional facilities within public parks that generate more outdoor activities for senior citizens, such as lawn bowling and shuffleboard.
40. Develop regulations for the protection of ridgelines, slope areas, and hilltops within the General Plan study area.
41. Initiate a study to determine prominent ridges, slopes, and hilltops within the study area to be subject to application of the guidelines discussed in Objective 40.
42. Establish the general alignments of proposed scenic highways in such a way that they fit the scenic character of the areas they are to traverse, and implement the construction of those alignments and associated improvements through interdepartmental coordination of engineering, grading, landscaping, etc.
43. Toward the attainment of policies relating to the development of scenic highways, adopt resolutions to accomplish the following in the design of scenic roadways and corridors:
  - a. An emphasis on curvilinear roadway patterns and grades that fit the natural topography;
  - b. Acquisition of wider rights-of-way than comparable, non-scenic roadways;

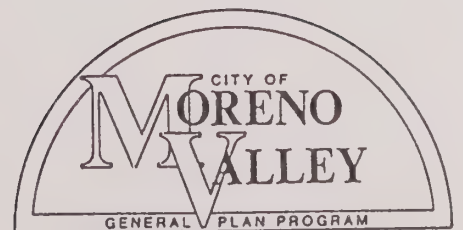


- c. Elimination, to the extent feasible, of unsightly development and outdoor advertising;
  - d. Provision of vegetative screens for potentially objectionable views;
  - e. Provision of appropriate view corridors; and
  - f. Provision of roadside parking areas and lookouts where warranted.
- 44. Develop joint School District and City guidelines for school development which include special criteria relating to enhanced landscape buffering, building bulk setbacks and pedestrian orientation for projects proposed adjacent to school facilities.
  - 45. Develop criteria associated with the joint use of school and park facilities within the City.
  - 46. Develop programs which would designate "safe routes" for school children who walk to and from school to mitigate potential automobile/pedestrian conflicts.
  - 47. Develop joint School District and City promotional information to encourage citizen involvement in programs which protect school children, and support innovative joint use concepts.



# V. COMMUNITY DEVELOPMENT ELEMENT

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## V. COMMUNITY DEVELOPMENT ELEMENT

### A. INTRODUCTION

The Community Development Element represents a culmination of the effort to shape the community of Moreno Valley. It is designed to outline a program for the further growth of the community and its surroundings. The Community Development Element evaluates the population, housing, employment, economic, and land use characteristics of the community, as well as the infrastructure elements needed to support present and future development within the study area.

This element is divided into the following major sections:

- Population
- Housing
- Land Use
- Circulation/Transportation
- Economic Base
- Water Facilities
- Wastewater Facilities
- Solid Waste Systems
- Other Public Facilities



## **B. COMMUNITY DEVELOPMENT GOALS**

It is the goal of the Community Development Element of the Moreno Valley General Plan to achieve:

- A pattern of land uses which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.
- An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.
- An overall design statement for the City of Moreno Valley that will establish a visually perceivable and unique image throughout the City.
- Adequate housing opportunities for all economic segments of the community, regardless of age, sex, race, ethnic background, national origin, religion, family size, marital status, physical condition, or other arbitrary factors.
- A supply of housing in sufficient numbers suitable to meet the diverse needs of future residents and to support the healthy economic development of the City of Moreno Valley without creating an oversupply of any particular type of housing.
- A well-balanced transportation and circulation system which provides for the efficient and safe movement of people, goods, and services within and through the City of Moreno Valley.

- Maintenance of systems for water supply and distribution; wastewater collection, treatment, and disposal; solid waste collection and disposal; and energy distribution which are capable of meeting the present and future needs of all residential, commercial, and industrial customers within the City of Moreno Valley.

## C. POPULATION CHARACTERISTICS

### 1. GROWTH TRENDS

#### a. EXISTING SETTING

Because of the recent incorporation of the City of Moreno Valley (December 1984), accurate historical population information is difficult to obtain. However, Riverside County has, in the past, made several population estimates for the area now generally comprising the Moreno Valley city limits. Based on these estimates, it is possible to piece together historical population trends.

As shown in Table V-A, growth through 1950 was slow. The decade of the fifties was a period of relatively rapid growth for Moreno Valley, as it was for all of Southern California, when the population of the Moreno Valley area nearly doubled. Growth slowed during the 1960's, however, as the population of the area increased at a slower rate than that of Riverside County. Population growth through the 1970's was steady, but not especially rapid.

Table V-A

### HISTORICAL POPULATION GROWTH

Year	CITY OF MORENO VALLEY				RIVERSIDE COUNTY	
	Population	Percent of Total County Population	Average Annual Growth	Average Annual Growth Rate (%)	Population	Average Annual Growth Rate (%)
1950	6,067	3.6%			170,046	
1960	13,291	4.3%	722	11.9%	306,191	8.0%
1970	18,871	4.1%	558	4.2%	456,914	4.9%
1980	25,150	3.8%	628	3.3%	663,923	4.5%
1984	49,702	6.6%	6,138	24.4%	757,500	1.4%
1986	65,380	7.8%	7,839	6.3%	838,474	1.1%
1988	90,675	9.6%	12,648	19.3%	946,074	6.4%



Since 1980, the population of Moreno Valley has grown in a spectacular fashion. Absolute annual population growth rates from 1980 through 1984 were more than eight times greater than for the 1950-1980 period. Annual population growth from 1984 through 1986 was 50 percent greater than for 1980 to 1984. The absolute growth rate from 1986 to 1988 doubled the 1984 to 1986 rate. According to the State Department of Finance, Moreno Valley has been among the fastest growing medium sized cities (population 50,000 to 200,000) in the State since 1985.

Overall, population within the present Moreno Valley city limits increased by 1,395 percent between 1950 and 1988. By comparison, Riverside County's population increased by 456 percent during that period. The result is that Moreno Valley is now the second largest city within Riverside County.

Although new development has provided site dedications for schools, parks, and other public facilities; paid City and special district development fees; and increased the City's tax and employment bases, the expansion of public services and facilities has in many cases not kept pace with the rapid rate of growth experienced over the past several years.

Schools have been faced with over-capacity student enrollments which necessitate overcrowded temporary facilities as a result of state funding programs that preclude the early construction of permanent facilities.

The City's ability to provide adequate services and facilities in pace with the needs of a growing population is hampered by a heavy reliance on developer fees, and an inability of the present fee system to keep pace with private sector construction schedules.

These negative impacts of growth are further magnified by less than accurate long range projecting, resulting from overly optimistic estimates based upon previous years and less rapid rates of growth.

## b. ISSUES AND OPPORTUNITIES

Population projections are an important and necessary determination to be made in a community's general plan. The population projected in the near- and mid-term future will help guide local service agencies in their determination as to the need for service and facility expansions required to serve future residents.

Population projections for the City of Moreno Valley are available from a number of sources, including the Southern California Association of Governments (SCAG), Urban Land Institute (ULI), and a number of individual marketing projections for Moreno Valley development projects. Year 2000 population projections for Moreno Valley run from a low of 132,580 to a high of 170,780 (see Table V-B). Year 2010 population projections range from a low of 180,580 to a high of 247,780. Mid-range population projections, which will be utilized for planning purposes, indicate a Year 2000 population of 151,680, and a Year 2010 population of 214,180. Thus, an average annual population increase of 6,200 people is projected, eight percent less than the population 1980-1986 growth rate of 6,705 persons per year.

By comparison, SCAG's Baseline Projection (1987) projects that in 2010 Moreno Valley will have a population of 163,091, which is, relative to the General Plan's projections, a significantly lower increase, or 3,645 persons per year over the 1987 population. However, the Baseline Projection is based on a straight line projection of 1970 to 1984 population growth. As previously discussed, the major increase in population growth in Moreno Valley occurred after 1984.

Physical, social, and market conditions presently affecting the City of Moreno Valley have changed dramatically in the past several years. As a result, the straight line projections of population trends from 1970 to 1984 as used in the SCAG 1987 Baseline Projection undercount present and foreseeable growth trends. The completion of the Pomona Freeway, providing excellent regional access to the City; development of significant employment centers in Orange, Los Angeles, and more recently San

Bernardino counties; rapidly increasing housing prices in Los Angeles and Orange counties; and a definite shift in development patterns from coastal to inland areas of Southern California have combined to accelerate growth rates in Moreno Valley and other areas of Riverside County far beyond 1970-1984 trends. The impact of these trends on area growth rates was not fully felt until after 1984.

In preparing population projections for Moreno Valley, the 1980-1986 period was determined to be more representative of future trends. By 1980, an inland shift of development trends was beginning to occur, freeways were in place, and Los Angeles and Orange County workers were finding it difficult to secure suitable housing which they could afford. Also, economic trends over the 1980-1986 period included two recession years with slow growth rates, two moderate years, and two very active years for development. This one-third/one-third/one-third cycle was believed to be an adequate representation of future conditions. A projection of 1980-1986 trends yielded the 6,200 average annual increase utilized in the General Plan.

The projected average annual population growth rate of 6,200 persons per year is roughly consistent with the SCAG-82 Modified Growth Forecast. The portion of Moreno Valley generally north of Alessandro Boulevard is within Regional Statistical Area 46A, for which SCAG predicts an average annual population increase of 3,645. In addition, the residential areas located south of Alessandro are included in RSA 47. By applying a weighted average of RSA 46A and RSA 47 growth rates to Moreno Valley's 1984 population, it was determined that the average annual population increase included in SCAG-82 Modified for the portions of Moreno Valley within RSA 46A and RSA 47 was 6,050.

Table V-B

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## CITY OF MORENO VALLEY POPULATION PROJECTIONS

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Year	Historical Population	Low-End Projection	Mid-Range Projection	High-End Projection
1950	6,067			
1960	13,291			
1970	18,871			
1980	25,150			
1984	49,702			
1986	65,380			
1990		84,580	89,180	93,780
1995		108,580	120,430	132,280
2000		132,580	151,680	170,780
2010		180,576	214,180	247,780

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Source: Southern California Association of Governments, Urban Land Institute, Economic Overview and Preliminary Land Use Market Analysis.

## 2. AGE OF POPULATION

### a. EXISTING SETTING

The present age of City residents was estimated based on the 1980 age cohort analysis, and an analysis of in-migration to the City of Moreno Valley, and is presented in Table V-C. As can be seen, the population of the City of Moreno Valley is young. The median age of Moreno Valley residents (28.1) is significantly lower than that of the County (36.1).

### b. ISSUES AND OPPORTUNITIES

As identified in the age of population data presented above, as well as in the data regarding the number of persons per household, young adults and families comprise a substantial portion of the population of Moreno Valley. An analysis of the changes in the age of population which occurred between 1980 and 1986 indicates that while the elderly comprise a smaller percentage of the City's population (7.5 percent) than they do of the County's population (9.4 percent), the elderly sector of Moreno Valley's population is growing at a faster rate than the City's overall population.

In addition, the growth rate of children under the age of 11 was slightly higher than overall growth rates; however, the growth rate of adults between the age of 30 and 44 was significantly higher than the overall rate. It should be noted that while the number of households within Moreno Valley increased by 22.8 percent between 1980 and 1986, the number of families increased by 46.1 percent. This indicates the increasing family nature of Moreno Valley residents, especially young families.



Table V-C

**CITY OF MORENO VALLEY**  
**ESTIMATED POPULATION CHARACTERISTICS: 1980 and 1986**

	1980		1986		Change: 1980-1986	
	Number	Percent	Number	Percent	Number	Percent
Population	25,150		65,380		40,230	160.0
Population in Households	25,138		65,361		40,222	160.0
Households	8,324		20,202		11,878	142.7
Families	6,543		18,896		12,353	188.8
Average Household Size	3.02		3.24		0.22	7.1
Average Family Size	3.43		3.46		0.03	0.9
Age Distribution						
0- 4	2,439	9.7	6,473	9.9	4,033	165.3
5-11	3,018	12.0	7,976	12.2	4,958	164.3
12-16	2,213	8.8	5,230	8.0	3,017	136.3
17-21	2,565	10.2	5,296	8.1	2,730	106.4
22-29	4,326	17.2	10,068	15.4	5,743	132.8
30-44	4,778	19.0	14,776	22.6	9,997	209.2
45-54	2,314	9.2	5,950	9.1	3,636	157.1
55-64	1,786	7.1	4,773	7.3	2,987	167.3
65+	1,735	6.9	4,903	7.5	3,168	182.6
Median Age	26.2		28.1			

Source: 1980 Census; CACI Inc.

### 3. ETHNICITY

The City of Moreno Valley contains two minority groups who together make up a significant portion of the City's population (see Table V-D). According to the 1980 Census, Spanish surnamed individuals make up 27.4 percent of the City's population. By comparison, Hispanic individuals make up 16 percent of Riverside County's population. Blacks make up approximately 5.8 percent of Moreno Valley's population, and account for 4.4 percent of Riverside County's population.

Table V-D

ETHNICITY		
	Number	Percent
White	51,650	79.0%
Black	5,753	8.8%
Native American	654	1.0%
Asian, Pacific Islander	1,961	3.0%
Other	5,361	8.2%
TOTAL	65,380	100.0%
Spanish Origin <sup>1</sup>	8,303	12.7%

<sup>1</sup>Spanish Origin includes people who listed themselves in each of the other categories.

Source: 1980 Census, CACI Inc.



## D. HOUSING AND HOUSEHOLD CHARACTERISTICS

### 1. EXISTING SETTING

#### a. DWELLING UNIT TYPES

According to the California Department of Finance, there were 23,251 housing units within the City of Moreno Valley as of January 1, 1986. The majority of these units (19,474) were single family detached dwellings (83.8 percent). By comparison, single family detached units made up only 63.9 percent of Riverside County's total housing stock. As of January 1, 1986, there were 1,088 mobilehome units within Moreno Valley (4.7 percent). By comparison, mobilehomes make up 15.2 percent of Riverside County's total housing units.

Since 1984, a significant amount of rental housing has been constructed within Moreno Valley. The proportion of attached housing in 1986 (11.5 percent) is, however, lower than it was in 1980 (18.8 percent). Dwelling units which were within two, three, and four unit structures accounted for 4.6 percent of the City's housing (1,078) units, but account for 6.5 percent of the County's housing inventory. Multiple family units (in structures with five or more units) accounted for 6.9 percent of Moreno Valley's housing units (1,611 units), about half the proportion of multiple family units Countywide.

#### b. RECENT RESIDENTIAL TRENDS

Moreno Valley's recent explosive population increase has been mirrored in its housing growth. As shown in Table V-E, 9,644 residential building permits were issued within the City during the period from January 1, 1986 through the month of September, 1988. Of these, 8,508, or 88%, were single family detached units, including 38 mobile home units, while the remaining 12%, or 1,136, permits issued represented new multi-family attached dwelling units constructed.



This increase in the housing stock between January 1, 1986 and October 1, 1988 represents a total increase of 42% over the January 1, 1986 total of 23,251 dwelling units (du's) existing within the City at an average annual increase during the 2 year 9 month period of 3,515 new residential du's per year, with the most dramatic yearly increase occurring during 1986. From January 1, 1986 through September 30, 1988, the City's total housing stock increased by 18%, or 4,212 du's, almost doubling the 1985 increase.

Based upon the information provided in Table V-E, the City's total housing stock as of October 1, 1988 consisted of 32,895 residential dwelling units, 27,968, or 85%, of which were single family detached units, while 3,825, or 11.6%, were multi-family attached units. Mobile homes as of this date represented 1,126 units, or 3.4%, of the total housing stock.

While increases in the City's housing stock occurring between January 1, 1986 and October 1, 1988 reflect a somewhat constant trend in the number of multi family attached as a percentage of total du's (11.6% vs. 11.5% existing as of January 1, 1986) single family detached du's as a percentage of total units increased from 83.8% in January 1, 1986 to 85% in October 1, 1988 with a corresponding decrease in multi-family units from 4.6% to 3.4% in 1988.

An important recent trend in the Moreno Valley housing market which goes hand-in-hand with the increased construction of single family detached dwelling units is its expansion into the move-up market. Housing within the Sunnymead Ranch planned community, as well as numerous tracts along the north side of Ironwood and large-lot tracts in the eastern portion of the City, generally feature larger homes with greater amenity packages than were offered in housing tracts earlier in the 1980's. This trend is also reflected in the fact that the average value of building permits for new residential construction is higher than the County average.

Table V-E

# CITY OF MORENO VALLEY RESIDENTIAL BUILDING ACTIVITY

(January 1986 through September 1988)

Building Type	<u>1986</u>		<u>1987</u>		<u>Jan 1988-Sept 1988</u>	
	Number	Value	Number	Value	Number	Value
New Single Family <sup>1</sup>	3,824	276,798,000	2,082	187,199,000	2,602	240,125,000
Multi Family	388	7,915,000	224	8,073,000	524	15,632,000
TOTAL	4,212	284,713,000	2,306	195,272,000	3,126	255,757,000

<sup>1</sup> Includes Mobile Homes

Source: City of Moreno Valley Building Department, Security Pacific Corporation, and Riverside County Department of Development.

## c. HOUSING CONDITIONS

(1) **Substandardness.** Unsound housing, those dwelling units in need of replacement or repair, is a major housing problem. The 1978 Riverside County Special Census, 1980 Federal Census, the 1984 Riverside County Housing Element, and brief windshield surveys were used to estimate the number of unsound units within the City of Moreno Valley.

The 1978 Special Census defined a unit as deteriorated if one or more of the following conditions existed:

- Lack of electrical service;
- Lack of plumbing facilities;
- Lack of heating, cooling, or insulation;
- Lack of kitchen or bathroom facilities;
- Lack of maintenance (i.e. leaky roof, broken windows, etc.)

Based on the 1978 Riverside County Special Census, 1980 Federal Census, and the 1984 Riverside County Housing Element, it is estimated that 94.8 percent of the existing housing units within the City of Moreno Valley are sound. Unsound units are estimated to comprise 5.2 percent of the City's housing stock (1,205 units). Of these 1,205 units, it is estimated that 64.8 percent (781 units) are suitable for rehabilitation.<sup>17</sup> Thus, approximately 424 dwelling units within Moreno Valley are in need of replacement.

d. HOUSING OCCUPANCY

(1) **Vacancy Rate.** Generally, a vacancy rate of four to six percent is considered ideal. A lower vacancy rate usually indicates a constrained market in which housing cannot or is not being produced in sufficient quantities, and is an indication that adequate housing choice is not available in the community. A vacancy rate in excess of six percent can occur for several reasons. High vacancy rates generally indicate that 1) housing is being overproduced, 2) a significant portion of a community's housing is in seasonal units, or 3) that the community is suffering from economic distress.

Moreno Valley's high vacancy rate (13.1 percent), however, is indicative of the large number of new dwelling units which are under construction, have been completed, or have been sold, but which are not yet occupied. This is not unusual for rapidly growing communities such as Moreno Valley. A review of 1980 and 1985 housing data identified vacancy rates as being 11.3 percent and 12.8 percent, respectively. Thus, the high present vacancy rate within Moreno Valley indicates that the extremely rapid housing production which has occurred since 1980 has been generally matched by population increases. It does not appear that housing is being overproduced in relation to demand.

<sup>17</sup>The 64.8 percent figure is based on Countywide data, and is assumed to be accurate for Moreno Valley.

(2) **Owner/Renter Status.** The large majority of Moreno Valley's housing stock consists of single family detached dwellings and mobilehomes (88.5 percent). Approximately 64.3 percent of the occupied dwellings within the City are owner-occupied (see Table V-F).

Table V-F

## HOUSING TENURE

	Number	Percent
Total Housing Units	23,251	
Total Occupied Units	20,202	
Owner Occupied	12,990	64.3%
Renter Occupied	7,212	35.7%

Source: 1980 Census, California Department of Finance

(3) **Overcrowding.** Overcrowding is a measurement of the adequacy of dwellings to accommodate residents. The basic standard used to determine overcrowding is that the number of persons per room within a unit should be 1.00 or less. Housing with an occupancy of 1.01 to 1.50 persons per room are considered to be slightly overcrowded, while housing with 1.51 person per room or more are considered to be severely overcrowded.

The 1980 Census identified 94.6 percent of the City area's housing as not being overcrowded. This figure shows no change from the 1970 Census. Data regarding the breakdown of those overcrowded units within Moreno Valley relative to severity of overcrowding is not available. Projecting 1980 data to 1986, it is expected that 1,095 dwelling units within the City of Moreno Valley are presently overcrowded.

**(4) Persons per Household/Large Families.** According to the California Department of Finance, the 1986 average number of persons per household within Moreno Valley is high, 3.24; the average for Riverside County is only 2.72. In 1980, the average number of persons per household within Moreno Valley was 3.02. Between 1980 and 1986, the average family size within Moreno Valley increased only slightly from 3.43 to 3.46. This indicates that the large part of the growth in average persons per household occurred in non-family households, possibly as the result on unrelated singles sharing housing to reduce costs.

Table V-G

HOUSEHOLD CHARACTERISTICS		
	Number	Percent
Total Persons	65,380	
Total In Households	65,361	
Total Number of Households	20,202	
Person per Household	3.235	
Number of Households With:		
Five or More Persons	3,313	16.4%
Female Head	4,343	21.5%
Female Family Head	2,242	11.1%
Handicapped Member	5,192	25.7%

Source: 1980 Census, California Department of Finance

According to the 1980 Census, approximately 16.4 percent of the households within Moreno Valley were considered "large households" having five or more members. Projecting 1980 data to 1986, it is estimated that 3,550 existing households within Moreno Valley contain five or more members.



Housing needs of large families are generally related to affordability and the ability to find housing of sufficient size. Affordability can be assumed to be a factor in housing need, due to the higher proportion of income used by larger families for non-housing expenses (e.g. food, clothing, etc.) as compared to households of smaller size. Consequently, larger households have a smaller proportion of their income available for housing with the result that affordability becomes a more significant factor in housing choice.

Due to the size of larger households, housing of sufficient size must be located in order to avoid overcrowding. Because housing aimed at households of typical size predominates the market, larger households may experience difficulty locating housing of sufficient size. It should also be noted that larger sized housing which could accommodate larger households is generally more costly, exacerbating affordability as a housing issue.

**(5) Elderly-Headed Households.** As indicated in the earlier discussion of the age of Moreno Valley population, elderly persons make up a small percentage of the City's population. Although reliable information on the number of Moreno Valley households which are headed by elderly persons is not available, the citywide age breakdown would indicate that the number of elderly-headed households is similarly small. However, it should be noted that the number of elderly residents within Moreno Valley is increasing at a faster rate than the general population, and is expected to continue doing so in the future as the community matures. Thus, housing for the elderly will become an increasingly important issue for Moreno Valley, particularly as it relates to the community's desire to maintain a diverse population base.

It is therefore important to understand that housing for the elderly is not only a process of physically building housing structures, but is also a social process. Special concerns of the elderly and factors which affect them need to be considered in project design and review. The more significant factors include:

- Elderly people are less mobile than younger age groups. The dwelling unit, including rental units should be conceived of as home, not as transient housing.
- The elderly desire autonomy and an environment which extends and enhances the time span of independent living. In order to enable the elderly to achieve this, they need convenient services, especially full service shopping and health care facilities, social service and activity centers, and public transportation. The design of individual facilities must emphasize the elimination of the physical barriers that would otherwise impede access by the elderly.
- The definition of the activity pattern for an elderly person should not be based on the assumption that the basic living activities are different from those of a younger person. Activities generally differ only in the way that the elderly wish to or are able to conduct them.
- The elderly wish to be a part of the community. They should not be located on physically or socially isolated parcels.
- The elderly are concerned about physical and psychological security to a greater degree than younger people.

Several specific factors are of special concern at the communitywide or regional scale related to the success of senior citizen housing. Major medical facilities should be available within 20 minutes driving radius, and should be connected to housing sites by a public transportation system. This is not presently the case within most of Moreno Valley, but will change with the construction of a hospital within the community. In addition, ambulance service must be available.

Opportunities for public involvement should also be available to elderly residents through existing facilities. Examples of such facilities include library, museum, churches, social services, community centers, historical society, YMCA, community parks, and similar facilities. These opportunities should be readily accessible by public transportation.

**(6) Female-Headed Households.** As indicated in Table V-G, 21.5 percent of Moreno Valley households are headed by women. The special housing needs of female-headed households are generally related to affordability. Thus, a sufficient inventory of affordable housing is required to meet the special needs of female-headed households. In addition, there are approximately 2,242 family households which are headed by a single woman within the City of Moreno Valley, indicating a need for local child care facilities and services.

**(7) Handicapped.** Questions regarding the total number of households with a handicapped member were not included in the 1980 Census. However, questions were asked to the 16 to 64 age group concerning work and transportation disabilities, and the 65 and older age group was asked questions regarding transportation disabilities. The County of Riverside used the 1978 Special Census in conjunction with the 1980 Census to determine the number of households with a handicapped member in preparing its 1984 Housing Element. Based on that analysis, it is estimated that as of January 1, 1986, there were 5,190 households (25.7 percent) within Moreno Valley which contained one or more handicapped members.

Housing needs of households with handicapped members are generally related to affordability and access. Due to the generally limited income of this group, housing affordability is a major factor in the choice of housing, assuming that these persons are able to choose to live independently of extended households or group care facilities.

Whether or not a handicapped person chooses to live independently, the physical accessibility of the dwelling is a major consideration in the adequacy of housing. Depending upon the type of disability, accessibility may entail access to the unit itself as in the case of persons in wheelchairs who

may require ramps or other special facilities. Accessibility may also entail the placement of fixtures within a dwelling (such as light switches, faucets, restroom facilities, bathtubs, etc.) so as to facilitate use by disabled persons. It should be noted that fixtures can generally be retrofitted onto existing structures, although they can be installed at less cost during construction. In addition, it should be noted that many of the fixtures necessary for handicapped persons are similar to those required by the elderly who may also suffer from lack of mobility.

**(8) Military Housing.** March Air Force Base currently has 711 on-base housing units available for married personnel and single personnel with dependents. Also available are 10 dormitories capable of housing 1,400 single personnel. According to March AFB officials, the base presently houses 1,796 military personnel. An additional 1,267 military personnel presently live off-base, primarily within Moreno Valley.

Airmen who live off-base receive additional pay to aid them in paying for housing; the amount of money they receive depends on rank. In addition, because of the high cost of housing in Riverside County compared to national averages, airmen residing off-base also receive a "Variable Housing Allowance".

Married personnel below the rank of E-4 (with less than two years of service) are not eligible for on-base housing. They and other families living off-base must seek housing in neighboring communities which is within their budget and suits their needs. Very few military families can afford to purchase housing in this area. Consequently, most military families are renters. Even so, low military pay scales, even when supplemented by housing allowances, make it difficult for military families to easily afford even local rental rates.

**(9) Emergency Shelter.** The Riverside County Board of Supervisors has recognized the need for emergency and transitory shelter. They are responding to this need by providing financial support to the "I Care Shelter Home" to assist with the acquisition, relocation, and/or rehabilitation of the units needed to expand this facility. Targeted



populations utilizing this facility (scheduled to open December 1, 1987) include the homeless, the handicapped, and persons in transitional situations (e.g., battered wives).

Facilities which provide permanent emergency or transitional housing throughout the County include:

Facility and Location

House of Hope Corona	Operates a 14 bed facility
Catholic Charities Palm Springs	Maintains 16 units (Scheduled to open December 1, 1987)
Valley Rescue Mission Indio	Accommodates 30 people
Our House Riverside	Provides separate facilities for men, women, and the mentally ill.

Other facilities which normally target their services to a specific population, (such as Riverside's Horizon Haven, which caters to the mentally ill) provide assistance to other groups on an emergency basis. Motel vouchers are provided to individuals and families experiencing a personal crisis with available surplus funds.

Information regarding temporary shelter and available social service agencies is provided by the Volunteer Center of Riverside. To effectively deal with the homeless problem in Riverside County, the volunteer center is currently conducting research which will assist them in coordinating future programs with service providers.



e. HOUSING PRICE AND AFFORDABILITY

**(1) Housing Prices.** Traditionally, Moreno Valley has been known for its excellent home values. In fact, housing value is often cited as an important factor in Moreno Valley residents' decision to move into the area. The excellence of Moreno Valley housing values is evidenced not only at the lower end of the market, but also in its move-up housing market.

Prices for both new and existing housing units within Moreno Valley fall into a broad range, depending on age, condition, and location. The price and market for housing is generally divided between the developed northern and southern portions of the study area along the Pomona Freeway, according to local real estate professionals.

Housing in the northern portion of the City has been selling for higher prices than in the southern portion. This is generally because the dwellings north of the freeway tend to be larger, and because the northern portion of the City is elevated above the valley, providing greater opportunities for view lots. Another influence on the difference in housing prices is increased cost of construction in the rocky portions of the hillside areas north of the freeway.

The differences in housing price are clearly discernible in the average selling price for homes in each area. According to Moreno Valley real estate professionals, based on recent resale activity, the average three to ten year old home in the southern portion of the City sells for between \$75,000 and \$90,000. By comparison, homes in the northern portion of the City sell for up to \$125,000 to \$175,000.

**(2) Income and Housing Overpayment.** Income data for 1980 and 1986 is presented in Table V-H along with income projections to 1991. As indicated, the median income in Moreno Valley is above that of Riverside County, and is rising faster than the County average. Whereas Moreno Valley's median income was 4.8 percent greater than the County's in 1980, by 1986, Moreno Valley's median

income was 14.6 percent greater than the County's. Within the next five years, it is projected that the median income of Moreno Valley residents will increase to 28.9 percent more than the Riverside County median.

Based on the household income data, it is estimated that, as of January 1986, 19.1 percent of Moreno Valley households (3,864) were within the Very Low Income category, defined as households having an income of less than 50 percent of the County median income (see Table V-I). A total of 3,065 households (15.2 percent) were considered to be in the Low Income category, defined as households with incomes between 50 and 80 percent of the County median income. Over two-fifths of the City's households -- 44.6 percent (9,006 households) -- were in the Upper Income category, defined as households earning more than 120 percent of the County median income.

As shown in Tables V-H and V-I, household income is expected to increase faster in Moreno Valley over the next five years than it is countywide. Thus, by 1991, the proportion of Very Low income households within Moreno Valley is expected to decrease from 19.1 percent to 15.6 percent, while the proportion of Upper Income households increases from 44.6 percent to 49.3 percent.

Table V-H

## MORENO VALLEY AND RIVERSIDE COUNTY HOUSEHOLD INCOME

Income	1986		1991	
	Number	Percent	Number	Percent
\$0 - 9,999	2,826	14.0%	3,543	11.7%
\$10,000 - 14,999	1,918	9.5%	2,513	8.3%
\$15,000 - 24,999	4,379	21.7%	5,693	18.8%
\$25,000 - 34,999	4,016	19.9%	5,511	18.2%
\$35,000 - 49,999	3,834	19.0%	6,238	20.6%
\$50,000 - 74,999	2,442	12.1%	4,481	14.8%
\$75,000 and up	787	3.9%	2,301	7.6%
<b>TOTAL</b>	<b>20,202</b>	<b>100.0%</b>	<b>30,280</b>	<b>100.0%</b>

Median Income	1980	1986	1991
Moreno Valley	\$16,800	\$27,424	\$31,154
Riverside County	\$16,037	\$23,932	\$24,170
Moreno Valley as percent of County	104.8%	114.6%	128.9%

Source: 1980 Census, CACI Incorporated.

Table V-1

## INCOME DISTRIBUTION BY CATEGORY, 1986 AND 1991

	1986	1991	Change: 1986-1991
Very Low [0% - 50% of County median]	3,864 19.1%	4,729 15.6%	865
Low [50% - 80% of County median]	3,065 15.2%	5,075 16.8%	2,010
Moderate [80% - 100% of County median]	4,267 21.1%	5,544 18.3%	1,277
Upper [Over 120% of County median]	9,006 44.6%	14,932 49.3%	5,926
TOTAL	20,202	30,280	10,078

Source: 1980 Census; CACI Incorporated

The California Department of Housing and Community Development (HCD) has stated that overpayment for housing is the most widespread housing problem in the State. Overpayment is also a significant concern in Riverside County and in Moreno Valley.

HCD defines overpayment as a family or household paying more than 25 percent of its gross income for housing (including rent or mortgage principal, interest, taxes, insurance, utilities, etc.). However, the 25 percent figure is considered by many experts to be outdated based on fluctuating interest rates, and overall increased utility and housing costs. Studies have shown that 30 percent may be a more reasonable standard for determining

housing overpayment. The Southern California Association of Governments (SCAG) uses the 30 percent standard in its preparation of the Regional Housing Allocation Model (RHAM).

Table V-J identifies the number of Low and Very Low income households in Moreno Valley who are paying more than 30 percent of their gross income for housing. This table is based on 1980 census data updated to 1986.

Table V-J

### HOUSING OVERPAYMENT BY VERY LOW AND LOW INCOME HOUSEHOLDS

<hr/>			
Lower Income Households Overpaying for Housing	4,268		
1. Total Very Low Income		2,810	
2. Total Low Income		1,458	
3. Total Renter Households		2,061	
Very Low Income			1,651
Low Income			410
4. Total Owner Households		2,207	
Very Low Income			1,159
Low Income			1,048
<hr/>			

Source: Southern California Association of Governments, Riverside County



## 2. ISSUES AND OPPORTUNITIES

### a. HOUSING PROJECTIONS

Concurrent with the previously discussed projections, the housing stock within Moreno Valley will increase rapidly over the next 24 years. Based on population projections, it is estimated that the number of housing units will increase to 70,950 by the year 2010. This assumes that there will be an average of 3.2 persons per household and a vacancy rate of six percent. Thus, an average annual housing growth rate of 1,835 dwelling units is indicated. Although the proportion of attached housing might be expected to increase as the result of national housing trends toward such housing, it is expected that the large majority of housing units will continue to be single family detached.

### b. NEED FOR REPLACEMENT HOUSING

Loss of housing stock in Moreno Valley is estimated to be comparatively low. Based on past trends, it is expected that approximately 20 dwelling units per year will be lost from the City's housing stock. Dwelling units lost from the housing stock are primarily expected to include units demolished for public health and safety reasons, since they are deemed to be beyond economical repair. The possible exception to this scenario is the potential redevelopment of the Edgemont area.

Within Edgemont, it might be expected that as redevelopment efforts are put into motion, and the area experiences economic growth, existing detached and attached residential units may be removed to make way for commercial, industrial, and multiple family residential uses. However, it is anticipated that the number of new residential units which would be constructed as the result of redevelopment efforts would be greater than the number of units lost to new development.

### C. FUTURE HOUSING NEEDS BY INCOME GROUP

As required by state law, the Southern California Association of Governments is responsible for preparing a Regional Housing Allocation Model (RHAM)<sup>18</sup> for cities and counties within its area. This model includes a five-year projection of housing needs, as well as a breakdown of new housing needs by income category: Very Low (less than 50 percent of the County median income), Low (50 to 80 percent of the County median income), Moderate (80 to 120 percent of the County median income), and Upper (over 120 percent of the County median income). The housing elements of all agencies within the State are required to make a good faith effort to meet the needs identified in the RHAM.

However, the RHAM was last prepared in 1984, and is not available for the City of Moreno Valley. In order to comply with Housing Element requirements, the methodology utilized by SCAG in the RHAM was followed to identify five-year housing needs by income category.

One exception to SCAG's methodology should be noted. The RHAM assumes that the income distribution of future households will be equal to that of present households; it does not include a provision for changes in the socioeconomic character of the City's population over time which would affect the distribution of income groups. Because 1991 household income projections for Moreno Valley were available, future housing needs by income group as presented account for income changes, and are therefore a more accurate reflection of real future needs.

Based on the RHAM methodology presented in Table V-K, five-year housing needs for Moreno Valley are presented in Table V-L. The impact avoidance factors included in the RHAM methodology are an integral part of the RHAM, and are intended to allocate a fair share of regional low and moderate income housing to avoid concentrations of this type of housing.

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<sup>18</sup>Recent revisions by SCAG have renamed this study Regional Housing Needs Assessment (RHNA).

#### d. SUMMARY OF HOUSING NEEDS

The following summary of Moreno Valley's housing needs is taken from projections to 1986 based on the 1980 census, the Riverside County Housing Element, socioeconomic projections prepared for the Moreno Valley General Plan program, and population and housing estimates prepared by the California Department of Finance.

- An estimated 781 dwelling units (3.36 percent of the total) are in need of rehabilitation.
- An estimated 424 dwelling units (1.82 percent of the total) are too deteriorated for economical rehabilitation, and are in need of demolition and replacement.
- An estimated 4,268 lower income households (21.3 percent of the total) are paying more than 30 percent of their income for housing, and are in need of housing assistance. Of these, 2,207 are owners and 2,061 are renters.
- An annual average of 1,877 new housing units will be needed over the next five years (total of 9,386) to provide for projected new household formation, to replace units lost from the housing stock, and to sustain an adequate level of market vacancies to provide sufficient housing choice and limit factors which increase housing cost.
- New housing units need to include both rental and mobilehome or manufactured units affordable to low and very low income households, as well as conventional sales units.

Table V-K

## REGIONAL HOUSING ALLOCATION MODEL WORKSHEETS

(1) TOTAL HOUSING UNITS	23,251
(2) TOTAL HOUSEHOLDS	20,202
(3) UNOCCUPIED UNITS	3,049

	Total		Renters		Owners	
	Very Low	Low	Very Low	Low	Very Low	Low
(4) HOUSEHOLDS IN NEED {LOWER INCOME HOUSEHOLDS PAYING OVER 30% OF INCOME FOR HOUSING, FROM 1980 CENSUS}	2,810	1,458	1,651	410	1,159	1,048

## PART II: FUTURE NEEDS (01/01/86 TO 01/01/91)

		Total	Very Low [0% - 50%]	Low [50% - 80%]	Moderate [80% - 120%]	Upper [Over 120%]
1.	1991 Households	30,280				
2.	1986 Households	20,202				
3.	5-year growth in households	10,078				
4.	1991 market vacancy goal (6 percent of total stock)	1,933				
5.	1986 market vacancies	3,049				
6.	Vacancy surplus	1,116				
7.	1986-1991 units expected lost from stock	100				
8.	Projected 1986-1991 housing needs for all income groups, unadjusted.		865	2,010	1,277	5,926
9.	Impact Avoidance Factor.		25	158	14	(197)
10.	Five year housing needs, adjusted to avoid impactation.		890	2,168	1,291	5,729
		Owner	Renter			
11.	Tenure and building type splits of 1991 housing stock.	67.7%	32.3%			

Table V-K

# REGIONAL HOUSING ALLOCATION MODEL WORKSHEETS

(cont'd)

Impact Avoidance Factor	Very Low [0% - 50%]	Low [50% - 80%]	Moderate [80% - 120%]	Upper [Over 120%]	Total
1. Total future housing needs (1986-1991).					9,386
2. Regional income distribution from 1980 Census.	1,567 16.7%	2,206 23.5%	1,774 18.9%	3,839 40.9%	
3. Local income distribution (1991 estimate).	1,466 15.6%	1,573 16.8%	1,718 18.3%	4,628 49.3%	
4. Avoidance of impaction (100% effort). [Line 2 - Line 3]	102	633	55	(790)	
5. Multiply by 25%. (Adopted policy guideline for reasonable effort to avoid impaction.)	25	158	14	(197)	
6. Revised local distribution to avoid impaction. [Line 5 + Line 3]	1,491	1,731	1,732	4,431	



Table V-L

## HOUSING NEEDS SUMMARY

		Identified Housing Needs	
A.	Existing Housing Units	23,251	
B.	Existing Households	20,202	
C.	Lower Income Households Overpaying for Housing	4,268	
	1. Total Very Low Income	2,810	
	2. Total Low Income	1,458	
	3. Total Renter Households	2,061	
	Very Low Income		1,651
	Low Income		410
	4. Total Owner Households	2,207	
	Very Low Income		1,159
	Low Income		1,048
D.	Overcrowded Households	1,095	
E.	Substandard Units	1,205	
	1. Needing Rehabilitation	781	
	2. Needing Replacement	424	
F.	Vacancy Surplus	1,116	
G.	Five Year New Construction Needs	10,078	
	1. Very Low Income	865	
	2. Low Income	2,010	
	3. Moderate Income	1,277	
	4. Upper Income	5,926	
H.	Total New Construction Needs [Line G + Line E2 - Line F]	9,386	
I.	Needed Average Annual Housing Production to meet Five-Year Needs	1,877	

## E. LAND USE

### 1. EXISTING SETTING

#### a. LAND USE PATTERNS

The Moreno Valley area, together with most of the San Jacinto and Perris region, originally developed in the late 1880's with the establishment of the Alessandro and Moreno settlements. Prior to European settlement, Indians of the Shoshonean Group had settled and remained in the area until California was granted statehood in 1850, thereby designating Moreno Valley as public land and open to subdivision and homesteading.

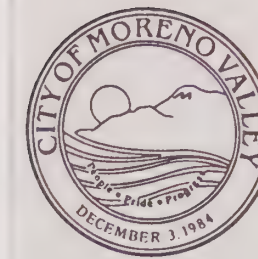
Grain and fruit farming became established as the principle land use in Moreno Valley in the late 1880's. The original activation of March Air Force Base in 1918 (later closed in 1922) and an increase in water well drilling further spurred development in the areas which eventually became the communities of Edgemont and Sunnymead in the northwestern end of the valley and Moreno in the southeastern end of the valley.

The reactivation and continual expansion of March Air Force Base during the 1940's generated significant economic and development activity in the Moreno Valley area. Furthermore, the inclusion of Moreno Valley into the Eastern Municipal Water District in 1954 provided an increased and more reliable source of water which, in turn, encouraged residential and agricultural development.

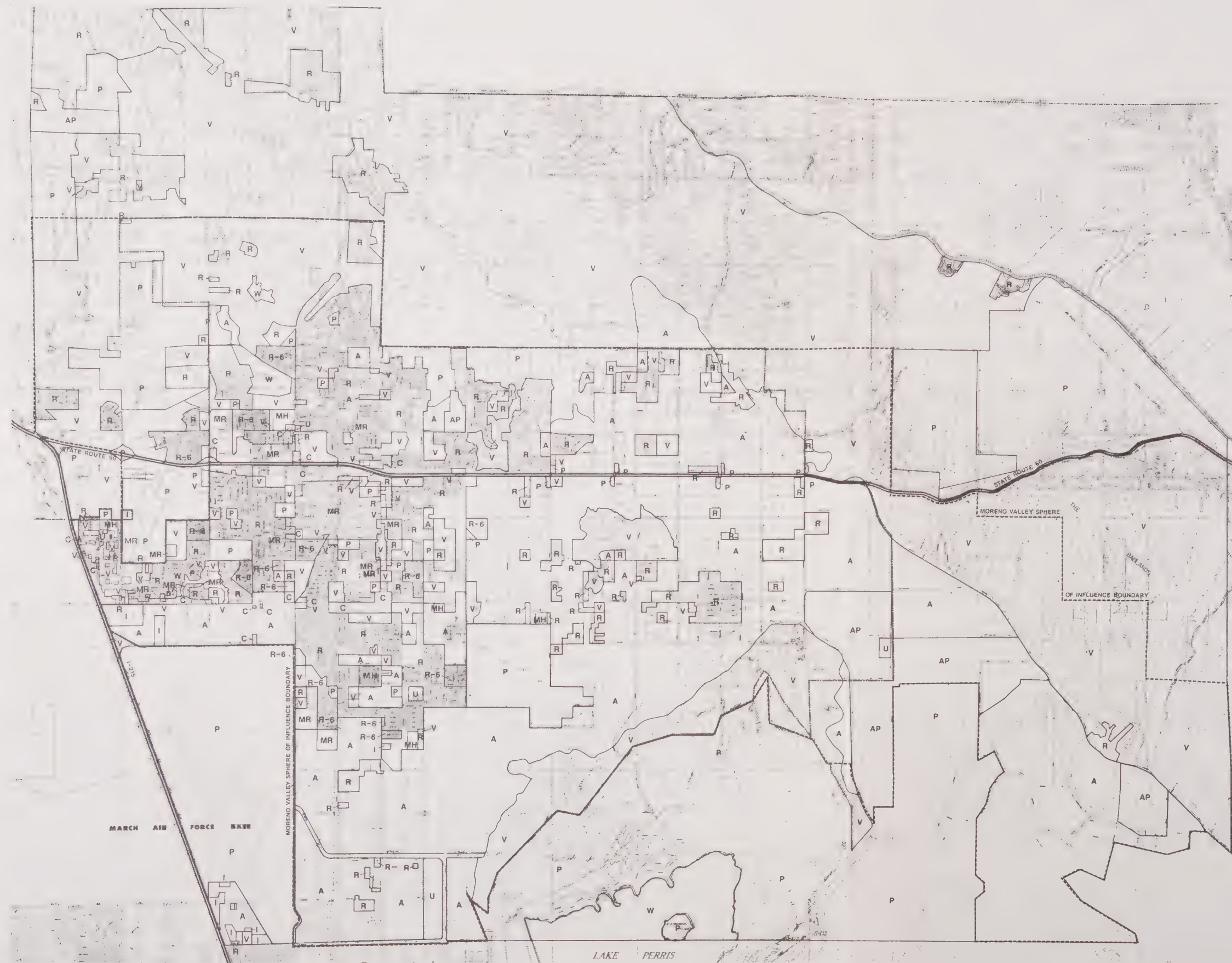
As desert resorts to the east expanded, the Moreno Valley community of Sunnymead developed a commercial strip along Sunnymead Boulevard, catering to regional traffic. However, the completion of State Route 60 substantially reduced the volume of traffic passing through the City's commercial area. The resulting loss of business and creation of new regional shopping centers to the west led to a decline and dispersion of commercial activities away from Sunnymead Boulevard.

Land use within the Moreno Valley study area has been increasingly residential in character. Single family residential neighborhoods dominate the western and northwestern portions of the City. In the southern and eastern portions of the study area, residential development is somewhat scattered throughout this still largely agricultural area. Multiple family units are generally not found in significantly large concentrations, however they do exist on individual sites, primarily in the western portion of the study area (see Figure 31 and Table V-M).





# EXISTING LAND USE



## LEGEND

- R** SINGLE FAMILY RESIDENTIAL (R-1 THRU, R-5)
- MH** MOBILE HOME PARK
- R-6** SINGLE FAMILY RESIDENTIAL (R-6)
- MR** MULTI-FAMILY RESIDENTIAL
- C** COMMERCIAL
- I** INDUSTRIAL
- A** AGRICULTURE
- P** PUBLIC/QUASI-PUBLIC
- V** VACANT/UNDEVELOPED
- AP** AGRICULTURE PRESERVE
- W** WATERCOURSE/WATERSHED
- U** UTILITIES

FIGURE 31

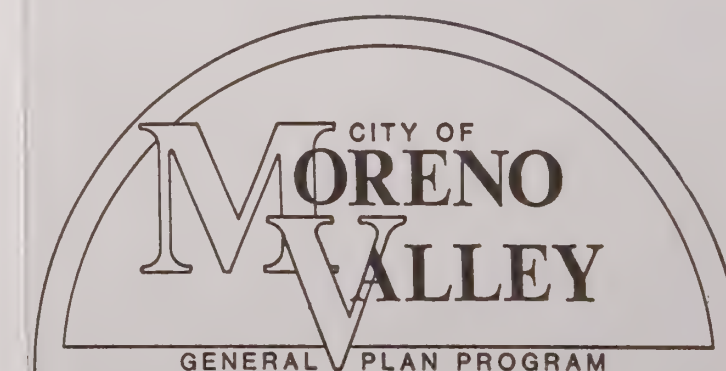






Table V-M  
EXISTING LAND USE  
(1987)

	Sphere of Influence	Areas Out- side Sphere	Study Area Total
Residential			
Single Family	8,483	1,616	10,099
Mobilehomes	164		164
R-6	614		614
Multiple Family	791		791
Commercial	416		416
Industrial	89	51	140
Agriculture	11,003	1,541	12,544
Agricultural Preserve	1,886	199	2,085
Public/Quasi-Public	5,599	11,348	16,947
Vacant/Undeveloped	14,011	22,564	36,575
Watercourse/Watershed	100		100
Utilities	23		23
TOTAL (acres)	43,179	37,319	80,498
TOTAL (square miles)	67.5	58.3	125.8

Rural residential areas are generally found in the north central, northeast, and south central portions of the study area.

Agricultural uses predominantly occur in the eastern and southwestern portions of the study area. A significant amount of those agricultural lands presently being converted to residential developments exist throughout the central and south central portions of the study area.

Commercial development is almost exclusively located along Sunnymead Boulevard, I-215, and, Alessandro Boulevard. Other less significant commercial areas exist on streets adjacent to these corridors and can generally be considered a part of the adjoining corridor.

Moreno Valley's industrial area is currently concentrated in the western portion of the City, along the south side of Alessandro, adjacent to March Air Force Base.

#### b. MAJOR LAND USES

The major land uses within the Moreno Valley study area include March Air Force Base, located in the southwestern portion of the study area, and the Lake Perris State Recreation Area, a state water project reservoir and public recreation area located at the extreme south-central portion of the study area.

**(1) March Air Force Base.** Through the efforts of the Riverside area community, Alessandro Aviation Field was established in 1918 as part of the War Department's national build-up of aviation training facilities. The field was renamed in honor of Lt. Peyton C. March, who died in an aircraft accident in 1918.

The primary mission of March Air Force Base (MAFB) is to develop and maintain the air refueling capability and strategic air lift operations of the 22<sup>nd</sup> Air Refueling Wing of the United States Air Force. It operates as part of the Strategic Air Command (SAC). In addition to the 22<sup>nd</sup> Air Refueling Wing, MAFB houses the 22<sup>nd</sup> Combat

Support Group, as well as numerous SAC and non-SAC tenants. A United States Air Force Hospital is also located within MAFB.

Presently, MAFB encompasses 6,959.63 acres along both sides of I-215. The base's operational runway is 13,300 feet long; there is also an inactive runway, 6,980 feet in length. During Fiscal Year 1985, a total of 4,253 military personnel were stationed at MAFB. In addition, a total of 3,754 civilians were employed at March. Military dependents totaled 4,777 persons. The Air Force estimates that MAFB has a total local economic impact of over \$386 million.

(2) **Lake Perris.** Lake Perris is located along the southern margin of the study area. This State of California facility is the southerly terminus of the State Water Project, and offers 8,300 acres of recreational opportunities including boating, swimming, fishing, riding and hiking, picnicking, and camping. According to the State, Lake Perris hosts approximately 2 million visitors per year.

## **2. ISSUES AND OPPORTUNITIES**

### **a. LAND USE PROJECTIONS**

Population projections presented within the population and housing characteristic sections of the existing setting report, and the statistical summary of the General Plan Land Use Map as shown in Table V-N provided the basis for calculation of the housing and employment summary reflected in Table V-N (part 2).

Table V-N

# GENERAL PLAN STATISTICAL SUMMARY OF LAND USE CATEGORIES

Land Use Category	Acres	Percent
<u>Residential</u>		
RR	5,505	12.75
HR	1,947	4.51
R1	2,201	5.10
R2	4,033	9.34
R3	1,194	2.77
R5	7,753	17.95
R10	265	0.61
R5/R15	261	0.60
R15	123	0.28
R20	280	0.65
PR	789	1.83
<u>Commercial</u>		
NC	239	0.55
CC	923	2.14
VC	20	0.05
TRC	1,219	2.82
PC	729	1.69
<u>Office</u>		
O	978	2.26
BP	767	1.78
<u>Industrial</u>		
PI	2,243	5.19
<u>Specific Plans</u>		
SP	4,485	10.39
<u>Other</u>		
P	389	0.90
OS	6,839	15.84
TOTAL	43,182	

Table V-N

**HOUSING AND EMPLOYMENT SUMMARY**  
(part 2)

---

Total Single Family Homes: 58,404

Total Multiple Family Homes: 16,201

Total Dwelling Units (Single and Multiple): 74,605

Total Population: 233,933

Total Retail Employment: 49,301

Total Non-Retail Employment: 116,987

Total Employment (Retail and Non-Retail): 166,288

Jobs-to-Population Ratio: 0.71

---



## b. MAJOR PLANNED DEVELOPMENTS

Currently, there are four major approved specific plan developments that affect the physical structure within and around the City of Moreno Valley. Upon buildout, each development project will not only contribute to both the overall quality of life, but also have a significant effect on potential land uses for adjacent areas. The four major developments are as follows:

**Towngate.** A specific plan to guide development of the Riverside International Raceway site has been approved by the Moreno Valley City Council. The land use plan for the Towngate project combines regional and community-related commercial uses with diverse residential housing, open space and public uses. The first of the project's two primary land uses is residential, including 2,423 residential units ranging in density from four to twenty-four units per acre; average residential density is 10.3 units per acre.

The Towngate land use plan includes a proposed 8.6 acre town center, encompassing public, quasi-public, and community or commercial uses in a town center concept, including potential day care, library, church and/or community recreation facilities (Figure 32). Towngate also includes one of the two hospital and medical office complexes proposed within Moreno Valley (the other is proposed within Moreno Valley Ranch).

Proposed commercial uses within Towngate encompass 238 acres, including a 90 acre regional shopping center proposed along State Route 60. Office development, as well as community scale retail uses are also proposed.

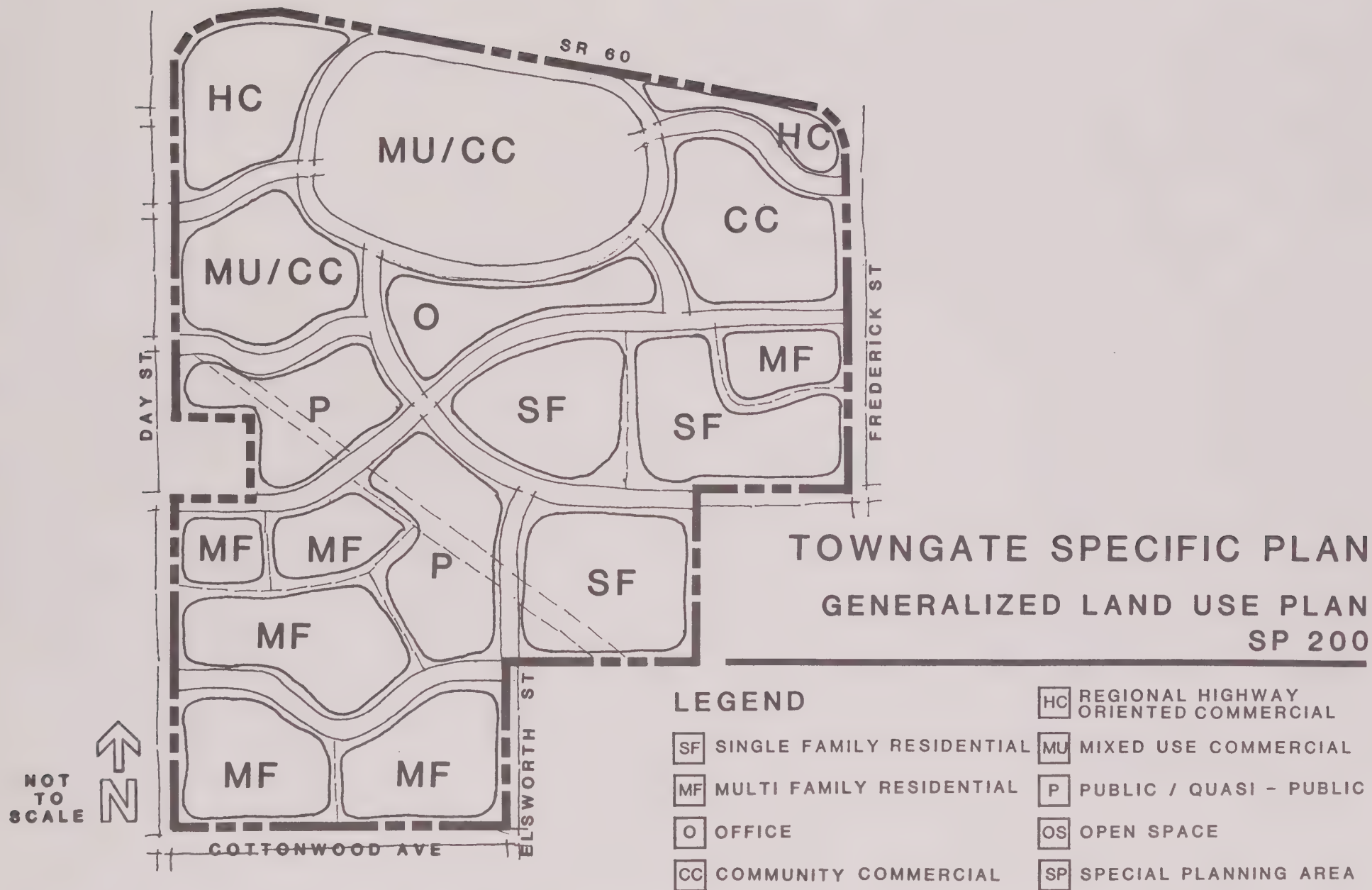


FIGURE 32

**Moreno Valley Ranch.** Although designed primarily as a residential community, the 3,959 acre Moreno Valley Ranch contains a broad range of uses (see Figure 33). As an example, the Moreno Valley Ranch will be the site of the Moreno Valley campus of the Riverside Community College. In addition, a hospital, medical complex and support commercial uses are included in this planned community located north of Lake Perris adjacent to the Mount Russell and associated foothills area.

A total of 12,061 residential units are proposed to be developed at densities ranging from a low of two to five units per acre to a high of seventeen to twenty units per acre. At buildout, Moreno Valley Ranch will be served by several retail commercial centers. In addition, a certain amount of office and restaurant commercial acreage has been included in the project's land use plan. Finally, the Moreno Valley Ranch land use plan identifies acreage appropriate for visitor serving commercial in the vicinity of the project's Moreno Beach Drive entry. Approximately 86 acres have been reserved for school and public facility needs, including land reserved for a potential civic center complex in the vicinity of the community college campus. Open space and recreational facilities include the preservation of approximately 1,664 acres of natural open space in the steeper and more environmentally sensitive portions of the site adjacent to Lake Perris. In addition, a system of equestrian trails is planned along the southern border of the project. Parks within Moreno Valley Ranch will encompass approximately 73 acres. Finally, community recreation facilities will include 35 acres of recreational lakes, a swim complex, health and racquet club, day care facilities, and a 27-hole golf course.

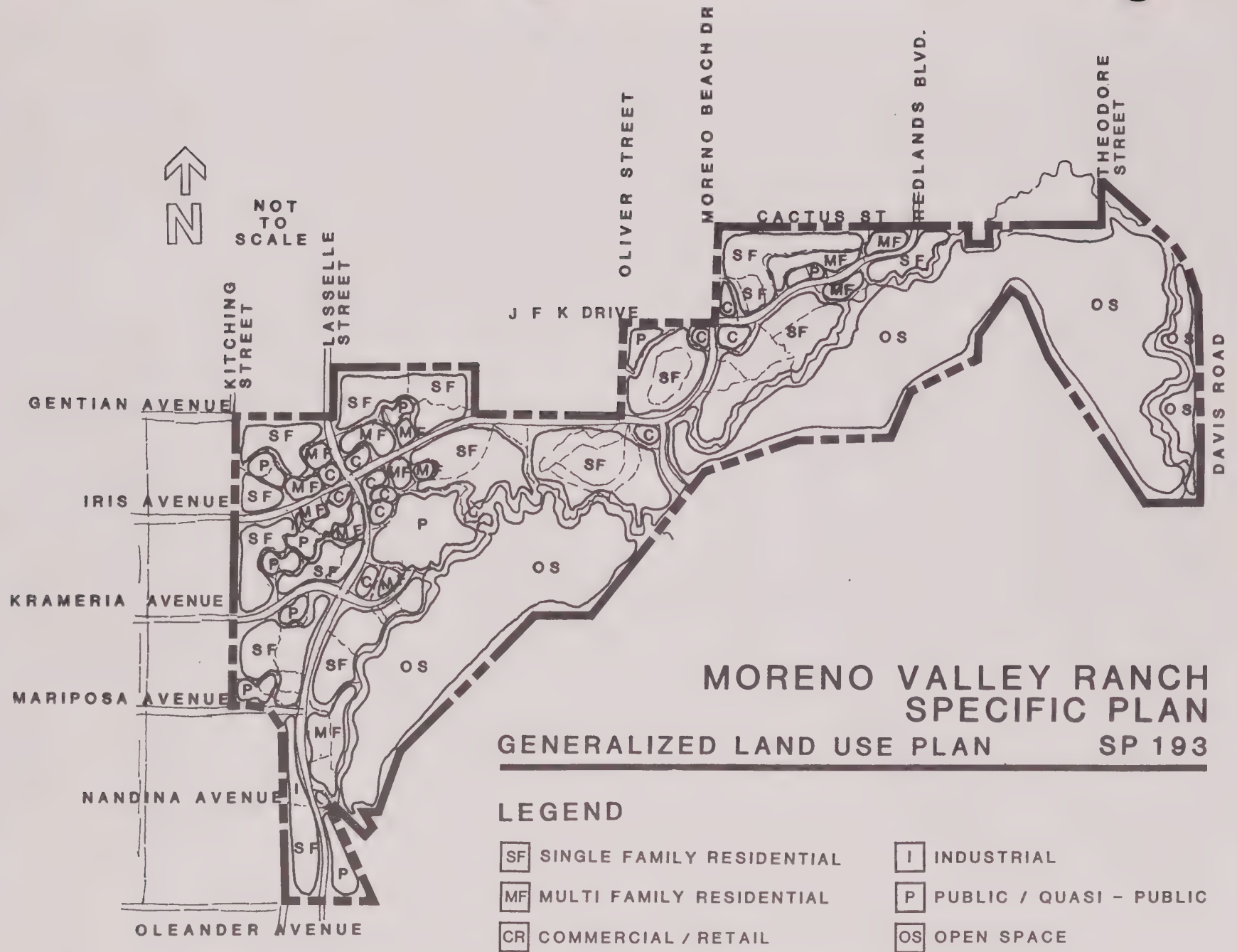
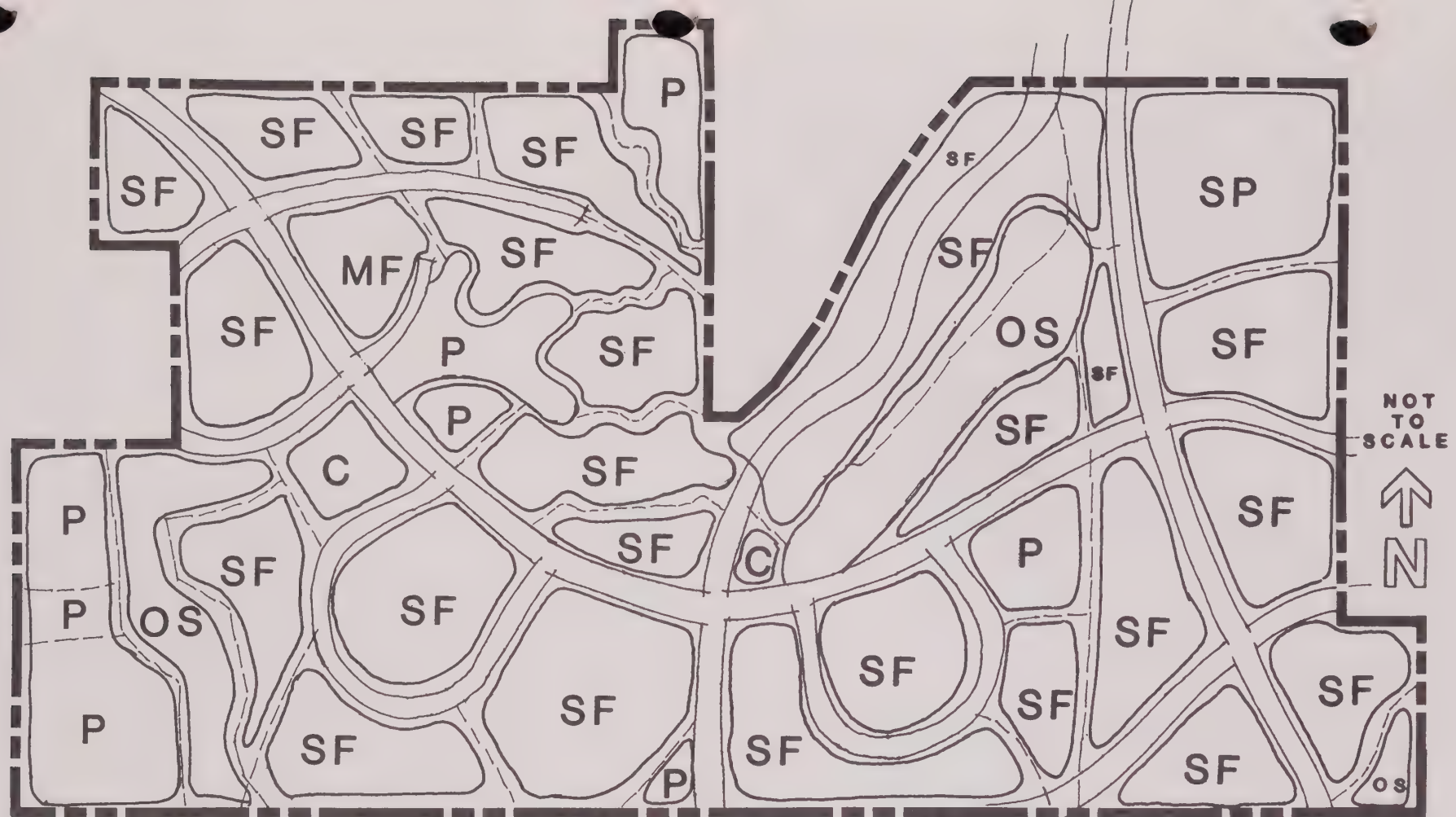


FIGURE 33

**Sunnymead Ranch.** Primarily a planned residential community with some commercial development in the northwestern portion of the study area, adjacent to the Hidden Springs development, Sunnymead Ranch proposes 3,492 dwellings within its 1,366 acres. The residential uses within Sunnymead Ranch will be clustered within 744 acres of the site at an average density of 4.7 units per acre (see Figure 34). These residential units will include a variety of traditional single family subdivisions, as well as townhouse and patio home planned developments. Approximately 15 acres of commercial development are planned.

Community open space within Sunnymead Ranch will encompass 438 acres, nearly half of which has been designated as agricultural open space. One of the most distinctive features of Sunnymead Ranch is its 49 acre recreational lake and community clubhouse facility. In addition to residential and open space uses, Sunnymead Ranch will include a fire station, schools, and 19 acres of public parks.





**SUNNYMEAD RANCH SPECIFIC PLAN** **GENERALIZED LAND USE PLAN SP 168**

LEGEND	<b>SF</b> SINGLE FAMILY RESIDENTIAL	<b>P</b> PUBLIC / QUASI - PUBLIC
	<b>MF</b> MULTI FAMILY RESIDENTIAL	<b>OS</b> OPEN SPACE
	<b>CR</b> COMMERCIAL / RETAIL	<b>SP</b> SPECIAL PLANNING AREA

**Hidden Springs.** A planned residential development in the northwestern portion of the study area adjacent to the Box Springs Mountain Regional Park, Hidden Springs proposes the development of approximately 1,214 dwelling units. The proposed residential uses would be developed at densities ranging from one to eight units per acre. In addition to residential uses, the 483 acre Hidden Springs project includes 181.8 acres of natural open space, trails, and developed park lands, as well as a 6.8 acre school site (see Figure 35).

In addition to the previously described approved projects, three presently proposed projects, if approved, will have an effect on surrounding, or even citywide land use patterns. These three projects are: Gateway Industrial Area, The Festival, and Sunnymead Boulevard.<sup>19</sup>

**Gateway Industrial Area.** The Gateway Specific Plan area is located along the south side of Alessandro Boulevard west of Heacock Street. The 233.4 acre proposal consists of a master plan containing a variety of industrial and commercial uses, including: research and development, light and medium manufacturing, assembly/distribution, industrial offices, professional offices, and retail (see Figure 36). The Gateway Specific Plan has been submitted to the City and is currently under review.

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<sup>19</sup>Subsequent to original publication, these specific plans were all approved and adopted by City Council.



NOT  
TO  
SCALE

## HIDDEN SPRINGS SPECIFIC PLAN

### GENERALIZED LAND USE PLAN

SP 195

- SF** SINGLE FAMILY RESIDENTIAL
- P** PUBLIC / QUASI - PUBLIC
- OS** OPEN SPACE

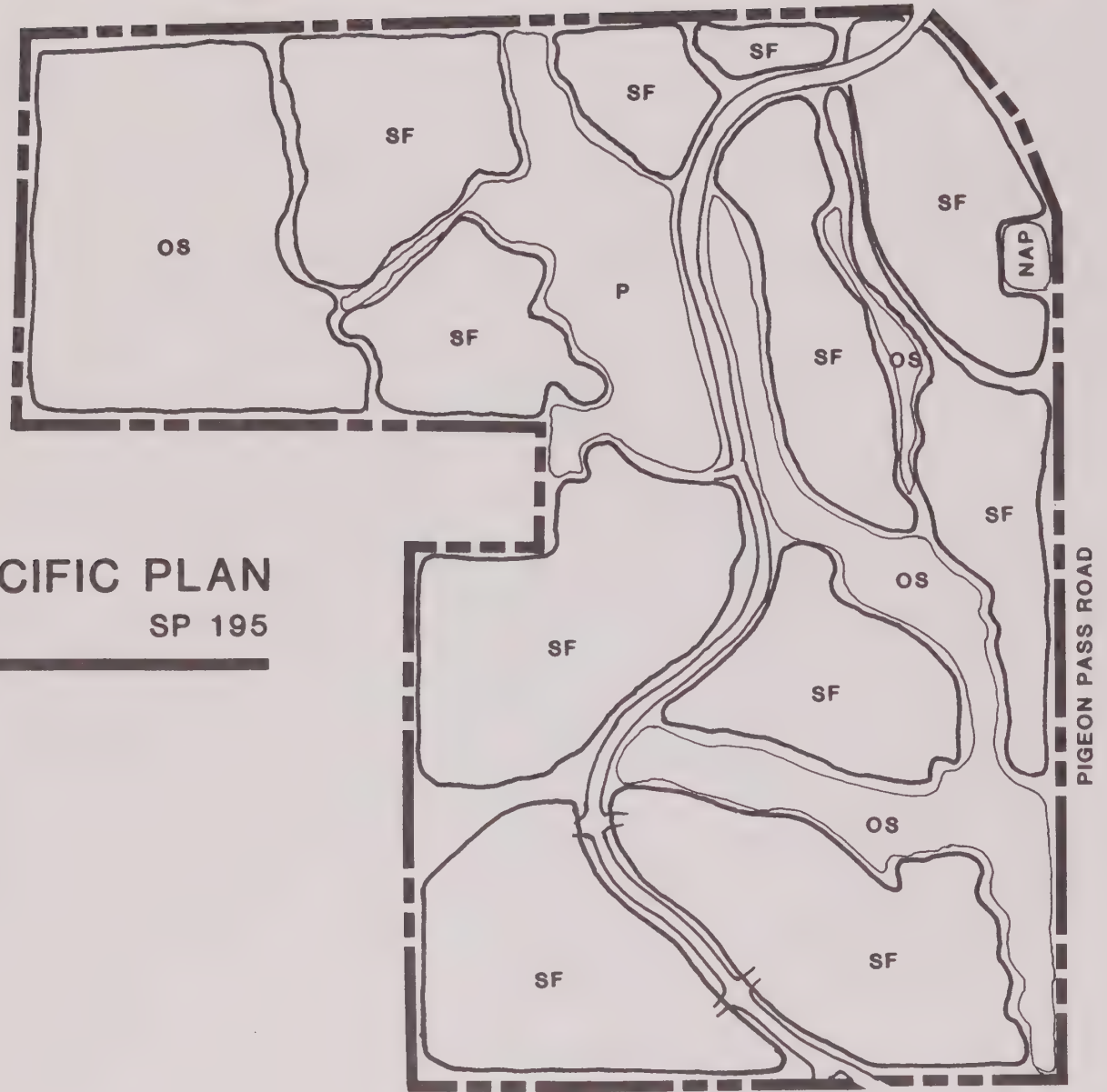
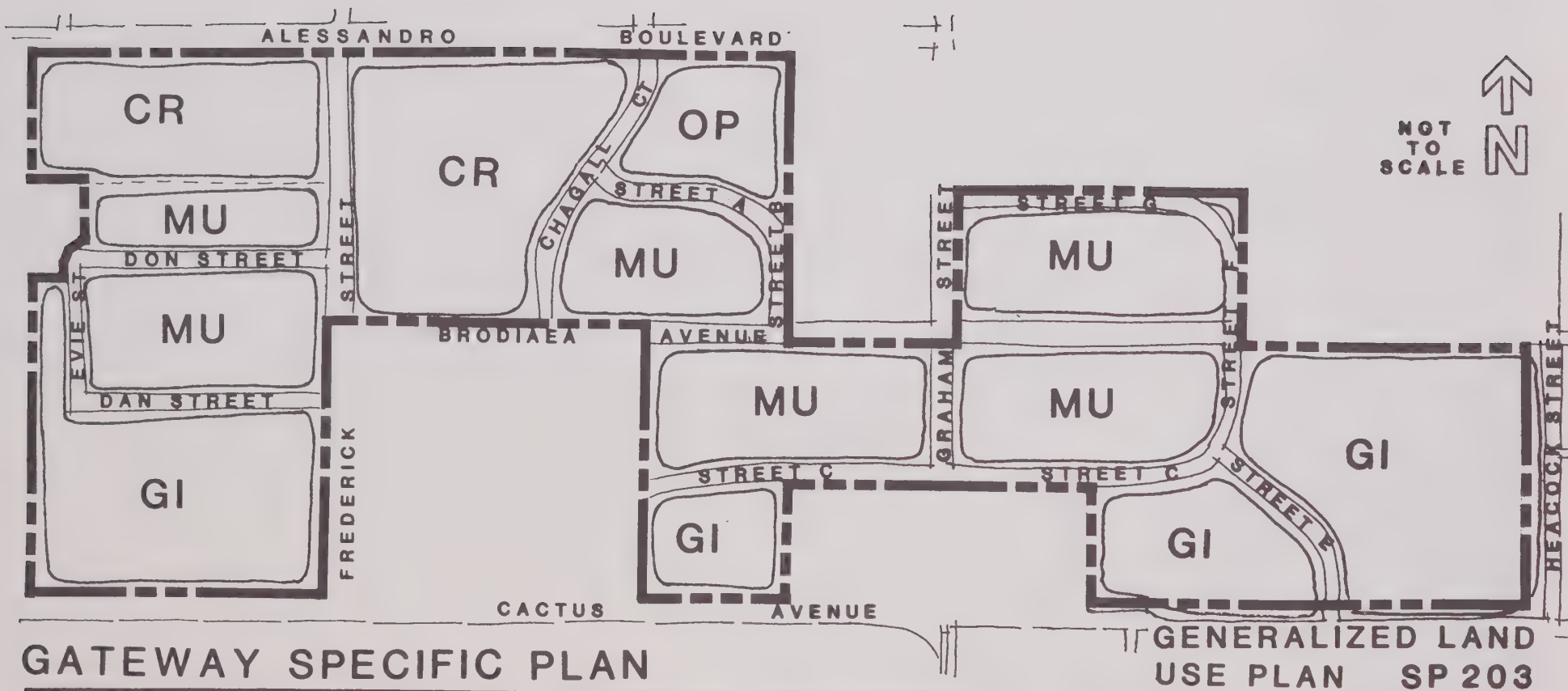


FIGURE 35



LEGEND

<b>CR</b>	COMMERCIAL / RETAIL	<b>MU</b>	MIXED USE: Office/Industrial
<b>OP</b>	OFFICE PARK	<b>GI</b>	GENERAL INDUSTRY

FIGURE 36



***The Festival.*** The Festival is located at the northwest corner of Indian Avenue and Hemlock Street paralleling Highway 60. The 61.5 acre proposal consists of a master-planned multi-use development with freeway oriented retail, commercial, and office uses intended to serve both the community of Moreno Valley and surrounding region (see Figure 37). The development will have a distinctive architectural character intended to create a landmark setting within the City. Developed open space areas are an integral part of the project design, serving as an open space amenity for adjacent residents and tenants.

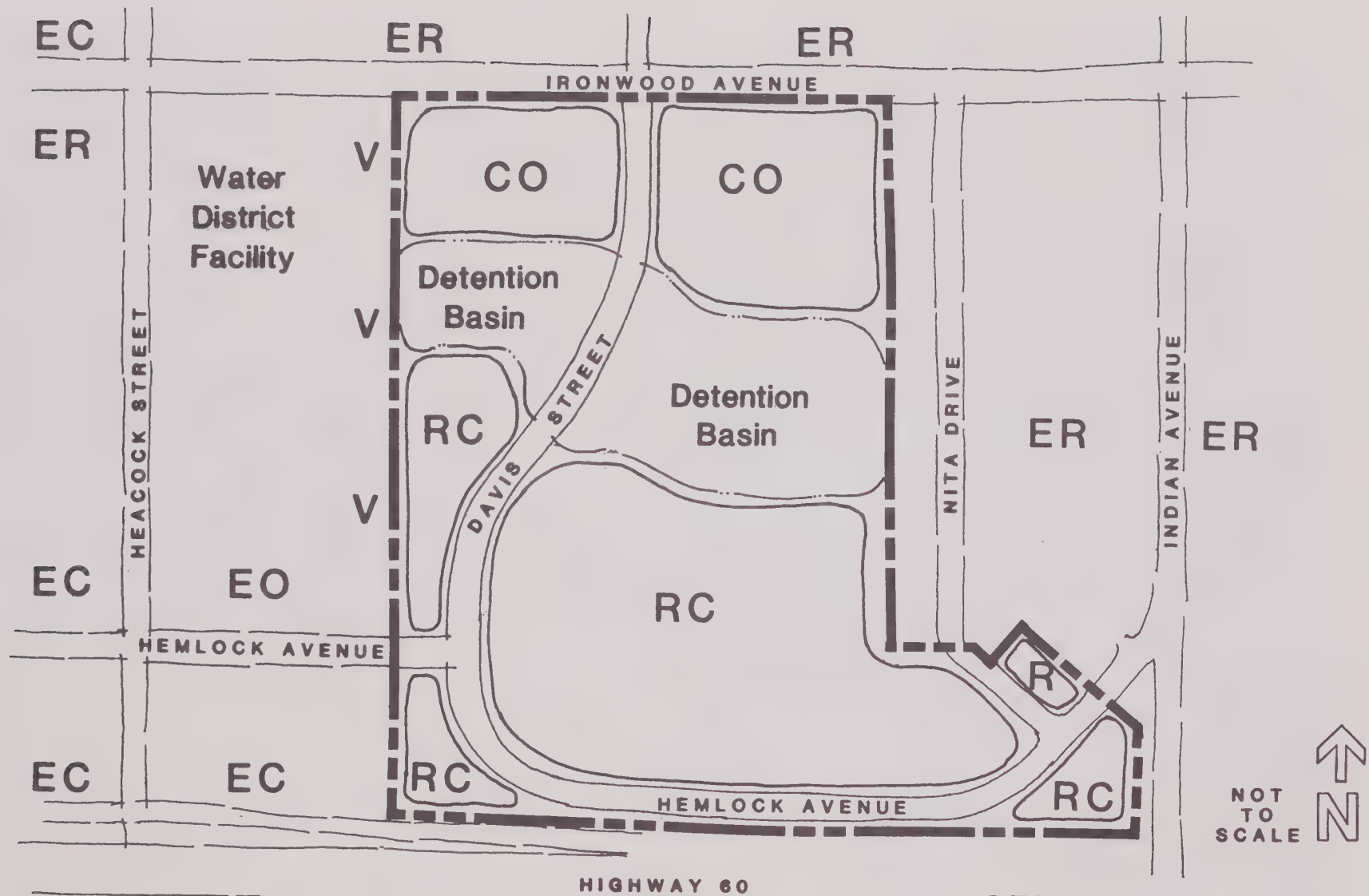
***Sunnymead Boulevard.*** The purpose of the Specific Plan is to supplement the interim City guidelines as they apply to the corridor by establishing additional standards and design guidelines specific to Sunnymead Boulevard development. The Specific Plan is also intended to establish a design theme, and to identify Sunnymead Boulevard as a special area within the City (see Figure 38).

#### C. LAND USE COMPATIBILITY

Land use compatibility refers to the ability of land uses to coexist without significant conflict. As a general rule, "compatibility" means that a land use will not cause a significant detriment to the residents', workers', users', and/or patrons' use and enjoyment of another property.

To be compatible, uses do not need to be similar; dissimilar uses can be compatible. In other cases, potential conflicts can be mitigated so as to create harmonious relationships between uses which might otherwise be incompatible. General factors to be assessed in determining the compatibility of two land uses include: ultimate land use objectives, intensity of use, hazards and nuisances, aesthetics and design, and economic and public use factors. A rough guide to the land use compatibility of general land use types is presented in Table V-O.





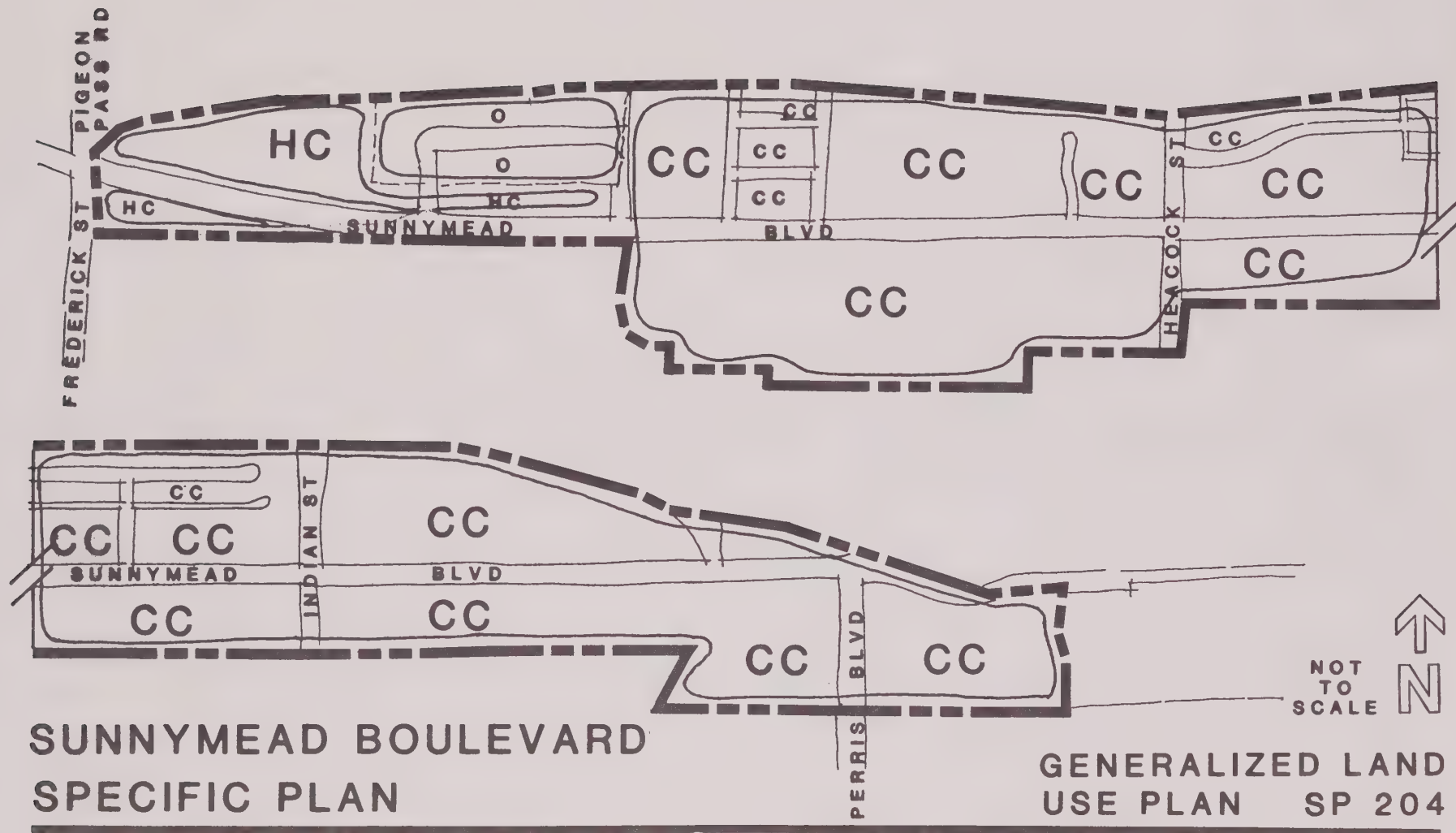
## THE FESTIVAL SPECIFIC PLAN

GENERALIZED LAND  
USE PLAN SP 205

### LEGEND

<span style="border: 1px solid black; padding: 2px;">R</span> RESIDENTIAL	<span style="border: 1px solid black; padding: 2px;">ER</span> EXISTING RESIDENTIAL	<span style="border: 1px solid black; padding: 2px;">V</span> VACANT
<span style="border: 1px solid black; padding: 2px;">CO</span> COMMERCIAL/OFFICE PARK	<span style="border: 1px solid black; padding: 2px;">EC</span> EXISTING COMMERCIAL	
<span style="border: 1px solid black; padding: 2px;">RC</span> RETAIL/COMMERCIAL	<span style="border: 1px solid black; padding: 2px;">EO</span> EXISTING OFFICE	

FIGURE 37



- LEGEND
- O OFFICE
  - CC COMMUNITY COMMERCIAL
  - HC REGIONAL HIGHWAY ORIENTED  
COMMERCIAL

FIGURE 38

Table V-O

## GENERAL LAND USE COMPATIBILITY MATRIX

	Single Family	Medium Density	High Density	Mobile Homes	Service Commercial	Retail Commercial	Office Professional	Distribution	Manufacturing	Heavy Industry
Single Family	H	H	M	M	M	M	M	I	I	I
Medium Density	•	H	H	M	M	M	M	I	I	I
High Density	•	•	H	M	M	M	M	I	I	I
Mobile Homes	•	•	•	H	M	L	L	I	I	I
Service Commercial	•	•	•	•	H	H	H	M	L	I
Retail Commercial	•	•	•	•	•	H	M	L	L	I
Office Professional	•	•	•	•	•	•	H	L	I	I
Distribution	•	•	•	•	•	•	•	H	L	M
Manufacturing	•	•	•	•	•	•	•	•	H	M
Heavy Industry	•	•	•	•	•	•	•	•	•	H

Compatibility Rating - H = High

M = Medium

L = Low

I = Incompatible

#### d. REDEVELOPMENT

Redevelopment, which combines a municipality's police and corporate powers, is one of the most powerful tools available to local governments. Where the private sector is unable or unwilling to assemble land and invest the necessary capital for revitalizing blighted areas, redevelopment is a means of focusing community resources to transform deteriorating or underutilized areas to more productive use.

Under California Community Redevelopment Law, redevelopment agencies, in carrying out a redevelopment program, are empowered to buy and sell real property, rehabilitate existing structures, move structures, provide public improvements in support of development activities in a "Project Area," or assist the private sector in financing the preceding activities.

The law provides that a redevelopment agency may obtain financing from any legal source. Most redevelopment agencies have relied on tax increment financing as a primary source of funding. Under this method, the assessed value of property in the project area is frozen at the time a project is identified, and the project area is formed. The increased margin, or increment, of tax revenues resulting from subsequent improvements pays the project's costs instead of being turned over to the usual taxing agencies. This lasts until the project is completed and paid for.

Following Proposition 13, tax increments are based primarily on actual improvements rather than inflation. Thus, unless investments are made which result in significant increases in property development and valuation, tax increments will be limited as will the ability of the agency to carry out further projects.

In addition to using tax increment financing, the agency may accept loans or grants from agencies of the federal or state governments, or any other public agency. Another major source of funding for redevelopment has been the federal Community Development Block Grant Program.

Section 33321 of the California Health and Safety Code requires every redevelopment plan adopted by a local agency to conform to the agency's general plan "insofar as the latter applies to the project area." The Health and Safety code also requires the local Planning Commission to report on the conformity of the proposed redevelopment plan with the General Plan of the agency.

Every redevelopment plan must contain building use limitations. Since the redevelopment plan is required to conform to the general plan, and is not required to conform with applicable zoning use classifications, a redevelopment plan's use designations can differ from zoning use classifications applicable to property in the project area. The effect of the redevelopment plan may restrict development that is otherwise permitted by applicable zoning.

The Moreno Valley Redevelopment Project Area is located in the west central portion of the City, generally southeast of State Route 60 and Interstate 215 interchange, and extends south along the I-215 to March Air Force Base, and east along State Route 60 to Moreno Beach Drive. Four redevelopment sites (totaling 4,676 acres) within the project area currently exist, and are presently overseen by the City Council, which acts as the Redevelopment Agency. (see Figure 39).

The goals and objectives of the Redevelopment Agency are outlined as follows:

- (1) To secure the elimination and prevention of blight and deterioration.
- (2) To minimize sales leakages by stimulating investment within the private sector.
- (3) To instill a high level of concern for architectural, landscape, and urban design, as well as land use principles in both business and residential areas.
- (4) To upgrade freeway infrastructure, which will improve locational advantages of businesses and accommodate increased traffic capacity.





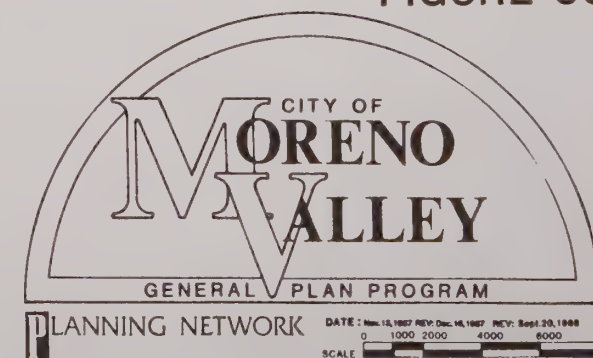
# CITY OF MORENO VALLEY REDEVELOPMENT AREA

## LEGEND



PROJECT BOUNDARIES

FIGURE 39





- (5) To retain existing businesses and allow their expansion.
- (6) To provide increased revenue to the City.
- (7) To preserve and stimulate the existing employment base by creating and developing local job opportunities.
- (8) To improve environmental deficiencies by properly maintaining and improving street infrastructure.
- (9) To improve and expand the supply and type of housing available.
- (10) To provide adequate funding for public services and facilities.
- (11) To adopt land uses which are compatible with surrounding areas.

Some examples of the projects or actions proposed are outlined below (the numbers below correspond to the goals and objectives mentioned above):

- (1) Eliminate blight influences existing in areas designated as residential, commercial, and industrial, in mixed-use developments, in agricultural and undeveloped lands. This results in increased and improved development, and consequently leads to effective land use, which is the overall goal of the Redevelopment Agency. One example of effective land use is the development of 40 acres of parks and improvements (i.e. 10 acres in the Edgemont area, and 30 acres in the Sunnymead area).
- (2) Assist in the construction of a regional shopping mall complete with support services and facilities (i.e. public transportation routes, parking structures, freeway frontage roads, etc.).
- (3) Encourage and assist the participation of owners, businesses, and public agencies in the redevelopment or revitalization process.

- (4) Add third travel lanes and auxiliary lanes to Route 60 (between west and east City limits) and construct a full diamond interchange at Lasselle Street.
- (5) Provide incentives to businesses (such as low interest loans) to upgrade or renovate their facilities.
- (6) Increases in the City's tax base will occur either as a direct or indirect consequence of each of the projected improvements resulting from the redevelopment activities.
- (7) Facilitate access to future employment areas by upgrading freeway interchanges to diamond and/or hook ramps, such as the Route 60 interchanges at Pigeon Pass Road, Nason Street, and Moreno Beach Drive.
- (8) Reconstruct three miles of streets in the Warner Ranch development to include sidewalks and street lights.
- (9) Develop affordable housing for senior citizens.
- (10) Provide public parking facilities on Sunnymead Boulevard.
- (11) Review proposals for land use compatibility.

In addition to the aforementioned projects and actions, the Moreno Valley Redevelopment Agency is embarking on the installation, construction, and/or reconstruction of curbs, gutters, sidewalks, pavements, driveway approaches, traffic signals and street lights throughout many portions of the city. The Agency will support redevelopment projects by assisting with improvements and/or developments which focus on storm drainage, water and sewage systems, school and fire station facilities, and a regional hospital/medical complex.



## **F. ECONOMIC BASE**

### **1. INTRODUCTION**

The Moreno Valley study area is undergoing a dramatic economic transformation, as the rural economy that prevailed until the 1970's is being converted into a major suburban residential, retail commercial, and industrial hub within western Riverside County. While about two-thirds of recent construction valuation has been for residential development, commercial/ industrial building valuation has increased 75 percent since 1984.

Two primary forces have fueled this transformation: continued population growth and accelerated job formation within the study area. These factors will be discussed below, and are followed by an inventory of existing and projected commercial and industrial facilities in the City.

### **2. EXISTING SETTING**

#### **a. ECONOMIC BASE**

**(1) Commercial Development.** Although Moreno Valley retains several commercial strips, it lacks a thriving industrial core, and is primarily residential in character. Retail and commercial uses are presently concentrated along Sunnymead Boulevard, Alessandro Boulevard, and in neighborhood centers throughout the study area, with the exception of its most northerly and easterly portions. Although no regional-level retail is presently located in the study area, the Riverside International Raceway property (west of the City of Moreno Valley) has been proposed for major regional mixed use development.



Based on data prepared for the Economic Enhancement Program,<sup>20</sup> the total amount of retail expenditures of Moreno Valley residents in 1985 was estimated and compared to actual retail sales within the City of Moreno Valley for that year. As shown in Table V-P, a significant amount of potential retail sales are "leaking" from Moreno Valley to other communities. Although the significant leakage of food and liquor sales which occurred in 1985 was largely overcome by expansion and construction of new markets, a significant outflow of retail expenditures by local residents continues due to a lack of available local retail development.

Table V-P

## RETAIL PERFORMANCE, LEAKAGES AND INFLOWS: 1985

	Per Capita	Total Expenditures [\$1,000's]	Actual Retail Sales, 1985 [\$1,000's]	Surplus or (Deficit) [\$1,000's]	Percent Surplus or (Deficit)
Food and Liquor Stores	\$1,864	\$116,880	\$13,712	(\$103,168)	-88.3%
Drug Stores	\$176	\$11,039	\$7,864	(\$3,175)	-28.8%
Home Improvement	\$394	\$24,675	\$6,906	(\$17,769)	-72.0%
Apparel Stores	\$228	\$14,285	\$2,631	(\$11,654)	-81.6%
General Merchandise	\$601	\$37,661	\$1,491	(\$36,170)	-96.0%
Home Furnishings	\$207	\$12,987	\$1,558	(\$11,429)	-88.0%
Specialty/Other	\$321	\$20,129	\$29,903	\$9,774	48.5%
Eating and Drinking	\$632	\$39,609	\$15,671	(\$23,938)	-60.4%
TOTAL	\$4,423	\$277,265	\$79,736	(\$197,529)	-71.2%

Source: Wedin Enterprises  
California State Board of Equalization

<sup>20</sup> Wedin Enterprises, City of Moreno Valley Economic Enhancement Program, 1985.

The sales loss identified above represents not only a general economic loss to the City of Moreno Valley, but also a lost source of potential revenue in the form of retail sales taxes, which are an important source of municipal revenue. One percent of retail sales made within a city are returned to the city by the State Board of Equalization. Thus, the \$197 million in retail leakages which occurred in 1985 represents nearly \$2 million in lost potential revenue to the City of Moreno Valley.

However, it should be remembered that Moreno Valley is a young suburban community located close to a larger urbanized city with stronger retail facilities. In such situations, retail sales leakage is typical for certain retail categories until they are developed locally.

Table V-Q recaps the City of Moreno Valley's commercial and industrial valuation for 1984 and preceding years.

Table V-Q

## COMBINED COMMERCIAL AND INDUSTRIAL BUILDING PERMIT VALUATION

	Building Permit Value (\$1,000's)	Percent of County
1980	\$ 2,246	2.04 %
1981	\$ 4,090	2.42 %
1982	\$16,332	9.94 %
1983	\$ 9,217	6.87 %
1984	\$20,890	7.79 %
1985	\$11,268	6.10 %
1986 <sup>1</sup>	\$ 6,765	4.89 %

<sup>1</sup> First Half 1986

Sources: Riverside County Building and Safety Department  
Riverside County Department of Development  
The Research Network, Ltd.  
James Felt Realty Service  
Security Pacific Corporation

(2) **Industrial Development.** The Riverside Department of Development reports that there are presently more than a dozen manufacturing firms within Moreno Valley. These firms are primarily located in the vicinity of March Air Force Base. Leading products include mobile homes, recreational vehicles, and related components and fixtures. Major manufacturing employers include Rohr Corporation (200 employees), Pacific Living Systems (120 employees), and Goldenwest Homes (100 employees).

(3) **March Air Force Base.** March Air Force Base (MAFB) has been the area's major employer for decades. In fiscal year 1985, MAFB employed a total of 5,376 persons, including 1,123 civilians, and generated \$386,245,100 in direct expenditures. A significant portion of this expenditure occurred within the Moreno Valley study area. Table V-R summarizes the major economic impact that March Air Force Base has on western Riverside County and the City of Moreno Valley. Because of its proximity to the base, the study area currently captures a substantial amount of this impact, and will continue to do so into the future.

In addition, payments to military retirees make a significant impact on Moreno Valley's economy. According to the MAFB Economic Resource Impact Statement, a total of 9,760 military retirees lived within the 923xx zip code areas. Annual retirement payments to these individuals totaled \$90,273,000 in Fiscal Year 1984.

Table V-R

**ECONOMIC IMPACTS  
GENERATED BY MARCH AIR FORCE BASE  
ON THE GREATER RIVERSIDE  
COMMUNITY, FISCAL YEAR 1984**

---

<u>Number of Personnel Assigned</u>	
Military Total	3,918
Civilian Total	944
Air National Guard	1,027
Air Force Reserve	1,604
Dependents	4,777
Others	514
<b>TOTAL BASE POPULATION</b>	<b>12,784</b>

<u>Total Payroll Expenditures (\$1,000's)</u>	
Military	72,276.1
Civil Services	25,124.3
Construction	5,631.3
<b>TOTAL</b>	<b>103,031.7</b>

<u>Contracting Expenditures</u>	
<u>Category</u>	<u>Dollar Value (\$1,000's)</u>
Supplies	5,517.3
Services	14,000.4
Construction	7,254.4
<b>TOTAL</b>	<b>26,772.1</b>
Local Major Constr. Proj.	6,479.0

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Source: March Air Force Base, Economic Resource Impact Statement, Fiscal Year, 1985.

**b. EXISTING EMPLOYMENT AND LABOR MARKET**

**(1) Labor Force Characteristics.** Estimates of the number of existing jobs within the study area are sketchy. According to the Riverside County Department of Development, total employment within the Moreno Valley community area was approximately 18,200 in 1984, including 1,468 civilians employed at March Air Force Base. Thus, it is estimated that there are presently about 16,730

jobs within the City of Moreno Valley. According to the Riverside County Department of Development, the largest employer within the City of Moreno Valley is the Moreno Valley Unified School District, which employs approximately 1,400 people. This accounts for about one out of every twelve jobs in the City.

By subtracting March Air Force Base employment from the community employment total, it is estimated that Moreno Valley has 0.26 jobs per capita. In recent years, a ratio of 0.35 jobs per capita has been maintained in western Riverside County -- significantly below the Southern California ratio of 0.46 jobs per capita which represents the regional balance of jobs and population. By comparison, the Irvine - Newport Beach area has 0.87 jobs per capita.

According to the Riverside County Department of Development, Moreno Valley has attracted a fairly young, well educated and stable labor force. Moreno Valley residents appear to correspond with western Riverside County residents in terms of job types (see Table V-S). One in three employees are professional/ executives/administrators, while four in ten are in production and technical occupations (i.e. service, repair, fabrication, and crafts).



Table V-S

# JOB TYPES OF MORENO VALLEY RESIDENTS, 1986

	Moreno Valley	Western Riverside County
Administrative	10%	13%
Administrative Support	9%	13%
Craft	5%	3%
Executive	3%	2%
Fabricator	1%	1%
Laborer	8%	8%
Owner/Operator	2%	5%
Precision Production	3%	3%
Professional	18%	18%
Repair	4%	3%
Sales	8%	8%
Service	13%	11%
Technical	10%	7%
Other	6%	5%

Source: Riverside County Department of Development, Western Riverside County, 1985-1986 Survey of Residents.

A recently completed 1985-86 survey of western Riverside County residents, commissioned by the Riverside County Department of Development, describes the characteristics of the existing labor force. Fully 48 percent of Moreno Valley households include one full-time employee, while 32 percent have two or more full-time employees. Employees are relatively young, well-educated, and stable. For example, 76 percent of the City's labor force is aged 18 to 44. These employees have twenty years or more to devote to employment, assuming retirement at age 65. This alone does not give Moreno Valley a competitive advantage, as most of western Riverside County's labor force is similarly young. However, 93 percent of Moreno Valley's labor force have attained a high school, technical, or college diploma. The County survey notes that Moreno Valley reflects the educational attainment of western Riverside County in general, but the proportion of college graduates in the labor force is double the national average.

(2) **Place of Employment.** Traditionally, Moreno Valley has functioned as a bedroom community for other job centers in Southern California. Most commonly, the city is perceived as a bedroom community related to the major employment centers of Orange and Los Angeles Counties. The 1985-1986 Riverside County residents survey reveals, however, that 54 percent of Moreno Valley employees work within Riverside County, slightly less than the western Riverside County average of 60 percent. The remaining 46 percent of the work force commutes to San Bernardino, Los Angeles and Orange Counties. As detailed in the following table, the proportion of Moreno Valley residents who work in Los Angeles and Orange counties is equivalent to the western Riverside County average.

The commuting patterns identified in the Riverside County survey are somewhat surprising in light of Moreno Valley's reputation as a bedroom community for Orange and Los Angeles County workers. While the number of Moreno Valley residents who work within Riverside County (54 percent) is lower than the western Riverside County average (60 percent), this is not reflective of the expectation that local workers are commuting long distances to Orange and Los Angeles counties. Instead, it is reflective of the greater proportion of Moreno Valley residents who are working in San Bernardino County, primarily within the cities of San Bernardino, Ontario, and Rancho Cucamonga.

Table V-T

### JOB LOCATION OF MORENO VALLEY RESIDENTS (1985 - 1986)

County	Moreno Valley	Western Riverside Co.
Riverside	54%	60%
Los Angeles	14%	10%
Orange	12%	16%
San Bernardino	15%	10%
San Diego	3%	2%
Other	2%	2%

Source: Riverside County Department of Development, Western Riverside County, 1985-86 Survey of Residents.

While the findings of the Riverside County survey were surprising, they are consistent with the results of the 1980 census and other socioeconomic analyses. Data contained in the 1980 census indicates that only 11.3 percent of Moreno Valley workers were employed in either Orange or Los Angeles County. The residents' opinion survey conducted by the Social Research Advisory as part of the General Plan Program's Community Issues Report found that 17.4 percent of Moreno Valley workers were employed in either Orange or Los Angeles County. Thus, although the percentage of Moreno Valley residents who are employed in Los Angeles and Orange counties has risen dramatically since 1980, it is still not as great as community perceptions might have indicated.

This pattern of employment commuting results in commute times of 30 minutes or less per day for 58 percent of employees, while 78 percent drive less than one hour for a round trip. As shown in Table V-U, a greater proportion of Moreno Valley residents have long commutes (over one hour) than do western Riverside County residents overall. In addition, a significantly smaller proportion of Moreno Valley residents have very short commutes to work (less than 15 minutes) than do western Riverside County residents overall. The median commute time for Moreno Valley residents is 26.7 minutes; the median commute time for western Riverside County residents overall is 21.3 minutes.

Table V-U

### ESTIMATED DRIVE TIME TO WORK FOR MORENO VALLEY RESIDENTS (ONE-WAY)

Time	Moreno Valley	Western Riverside Co.
Under 15 Minutes	22%	39%
15 to 30 Minutes	36%	26%
30 to 45 Minutes	11%	11%
45 to 60 Minutes	9%	10%
1 to 1.5 Hours	15%	10%
Over 1.5 Hours	7%	4%

Source: Riverside County Department of Development, Western Riverside County, 1985-86 Survey of Residents.

In conclusion, the reality of the commute to work experienced by Moreno Valley residents is not as bad overall as the perception. However, the lack of a local job base has caused a large percentage of Moreno Valley residents to commute to jobs in other communities. In addition, although the percentage of Moreno Valley workers who commute over one hour to work each day is less than the perception, it is significant.

### 3. ISSUES AND OPPORTUNITIES

Growing cities such as Moreno Valley which are located near larger urban areas typically pass through different evolutionary phases. Residential growth, fueled by the in-migration of commuter households, gives rise to the support for local retail development. As the community continues to evolve and reach a critical mass, job-related growth, including industrial development and more intensive retail development, often take place together with increasing levels of commercial office development. While the City has not yet entered this later phase, it can be anticipated in the near to mid-term future.

#### a. DEVELOPMENT POTENTIAL

One of the most important strategic planning issues facing the City of Moreno Valley is the community's need and desire to achieve a more balanced mixture of development. In recent years, the area's existing rural, small town character has been rapidly transformed into that of a suburban residential community. While other land uses are beginning to accompany residential development, this growth has yet to be accompanied by significant amounts of industrial, commercial, and related types of development which are critical to the creation of an adequate economic base for a balanced, self-supporting community.

(1) **Industrial Sector.** The ability of Moreno Valley to attract greater amounts of industrial development depends upon a variety of factors, many of which are beyond the ability of the City to control. Historically, Los Angeles County, and



later Orange County, attracted most of the industrial growth within Southern California. Beginning in the late 1970's, industrial growth has tended to shift to the east into Riverside and San Bernardino counties.

As a consequence, new industrial concentrations have evolved in such areas as Ontario and Rancho Cucamonga, centering around the Ontario International Airport. Other concentrations have occurred in the cities of Riverside, Colton, Fontana, and San Bernardino. The major driving force behind this industrial development trend in Riverside and San Bernardino Counties is the relocation of firms from Los Angeles and Orange counties being attracted by lower priced land, more affordable employee housing, and a large available labor pool.

In attracting industrial development in the future, the City of Moreno Valley will be in competition with locations further to the west which also meet the industrial locational criteria described above. For example, major tracts of industrial land already exist, and are being developed within the cities of Ontario, Rancho Cucamonga, and Fontana. In excess of 10,000 acres of industrial land are available in that area alone, and are capable of meeting total demands for a number of years. City's to the east, such as Moreno Valley, in competing for industrial firms which are willing to consider more distant locations, will need to offer more attractive factors such as lower land prices, the availability of public assistance, or some unique feature for industries in order to effectively compete in the next several years.

According to the Economic Enhancement Report prepared by Wedin Enterprises, the present "standard" in the industrial market within which Moreno Valley competes is for improved lots with curbs, gutters, sidewalks, water, sewer, and all utilities in place. Although raw land is being sold for industrial use in unincorporated areas, improved lots have a distinct marketing advantage over raw land because they appeal to a broader range of potential users.



According to marketing analyses prepared for the Economic Enhancement Program, the average annual demand for industrial acreage in Riverside County is approximately 125 acres per year. A five to eight percent capture rate for the City of Moreno Valley was assumed based on experiences of industrial parks within Riverside. Thus, the Economic Enhancement program estimated that the City of Moreno Valley could absorb between 6.0 and 10.0 acres of industrial land annually. This compares with the 43 to 49 acres that were absorbed in 1984 by industrial areas in nearby Riverside, where 194 acres are presently reserved for development of planned industrial parks.<sup>21</sup> Under a well orchestrated and effective marketing program, the report assumed, higher absorption rates for industrial land within Moreno Valley could be achieved.

While the City of Moreno Valley has historically been on the periphery of industrial development, the City already possesses a number of attributes which are attractive to in-migrating firms, and should therefore be capable of increasing its penetration into the Riverside County industrial development market. Among these attributes are affordable land, affordable housing for employees, and an expanding labor market.

Moreno Valley's greatest industrial opportunity is the formulation and aggressive marketing of an overall industrial development strategy; the City has yet to launch a systematic search for new industrial tenants. In order to successfully market the Moreno Valley area for industrial use, several issues must be addressed. The amount and location of appropriate industrial sites needs to be determined. Because freeway access and an industrial park setting are desirable characteristics, industry must vie with commercial and residential projects for the limited number of appropriate sites along I-215 and State Route 60. While parcels adjacent to the freeway may be difficult to reserve, they would provide an opportunity to keep associated truck and commuter traffic outside the City proper.

While offering more attractive industrial sites is evolving in Moreno Valley in the vicinity of Alessandro Boulevard and Cactus Avenue, the

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<sup>21</sup> Subsequent to original publication, acreage planned for industrial development within Riverside has been significantly expanded by approval of the Hunter Business Park and Sycamore Canyon Business Park specific plans.

Economic Enhancement Program recommended that the City seek to provide additional industrial areas which will offer freeway exposure or easy freeway access. One such potential area is the recently annexed land south of the Perris Valley Storm Drain, north of Oleander Avenue. Development of this area will require flood control improvements. In addition, a coordinated effort with the City of Perris will be needed to improve Oleander Avenue from its interchange on I-215.

A second issue facing industrial development concerns the types of industry the City wishes to court. The City has the opportunity to pursue stable, job-intensive firms with a strong economic outlook, but may find that many interested prospects fall short of this ideal. Further, nearly every business deals with some type of hazardous materials, or emits pollutants either through industrial processes or the automobile emissions generated by commuting employees. The City may be able to capitalize upon a general eastward shift of heavy industry following the South Coast Air Quality Management District's amendments to the air basin's New Source Review Rule (refer to Air Quality section for details).

Future employment for western Riverside County, including the study area has been projected by the Southern California Association of Governments. The statistical area in which the bulk of the study area is located, RSA 46, includes the Riverside, Corona, Norco, Jurupa, and Moreno Valley portions of western Riverside County, and is projected to experience a doubling of job growth through the year 2010 from a base employment of 113,600 in 1984 to 239,300 jobs in 2010. If the study area garners a greater share of this total than in the past, as is expected, it is projected that employment within Moreno Valley will grow to 76,670 jobs by the year 2010. This is equivalent to .35 jobs per capita, still below the regional balance, but significantly above the existing ratio.

The employment projections cited above are based on the continuation of trends. An evaluation of realistic potentials indicates that Moreno Valley may have the opportunity to become a regional or subregional job center, depending on the types of jobs it attracts, the amounts of land reserved for employment generating uses, the City's ability to

market its attractive labor force and location to potential employers, and the aggressiveness of the City's marketing program. The study area's population growth will create a natural demand for certain types of professional, service, and sales jobs to meet basic needs. However, the City has the opportunity to go beyond this level of employment growth by attracting new employers. The City will be competing with other inland growth areas for these businesses, and may achieve a competitive edge by master planning freeway-accessible areas for retail, commercial, and industrial uses, including parcels large enough to accommodate some regional-scale activities.

**(2) Commercial and Retail Market.** Moreno Valley's retail and commercial market is undergoing the "catch-up" phase which is typical of fast-growing urban areas. Until the population base expands sufficiently, it is usually uneconomic for retail and commercial establishments to locate in a community. Thus, many kinds of goods and services are still not available locally. The Economic Enhancement Program identified more than 20 types of establishments as being needed in Moreno Valley, ranging from discount retailers such as Price Club to restaurants, bookstores, hardware stores, and commercial recreation facilities.

Given the growth cycle through which the City is now passing, as well as external influences, the Economic Enhancement Program concluded that the commercial potentials which will have the greatest near term influence will be those associated with retail development and other commercial uses that are directly supported by an expanding residential population base. As part of the normal evolutionary process, the potential for commercial development within the City will be supplemented over time by increased demand for development of related commercial uses such as office space, transient lodging (hotel and motel), financial services, commercial recreation, and other related types of uses.

Purchasing power in Moreno Valley is and will be the key factor in the retail market. Table V-V projects retail expenditures through 2010. This data assumes a one percent per annum compound rate of growth in per capita spending. Local



expenditures are expected to nearly quadruple between 1985 and 2010 as a result of population growth and increases in real income.

Convenience purchases, such as food and liquor, drugs, and home improvement items, are typically made near the purchaser's residence. Conversely, more expensive purchases of clothing, furniture, and specialty goods often prompt comparison shopping, which may take place further from the home. As a consequence, retail purchases by residents will be attracted to various types of shopping facilities located both within and outside of the City. Four basic types of retail centers can be identified: Neighborhood, Community, Regional, and Freestanding.

Neighborhood Centers are planned centers providing for the sale of convenience goods (food, drugs, and sundries) and personal services. Typically anchored by a supermarket and often containing a drugstore as an additional anchor tenant, these centers provide for the daily needs of an immediate neighborhood trade area. Typical gross leasable square footage generally ranges up to 50,000 to 100,000 square feet.

Community Centers are larger planned shopping complexes which provide for a broader range of goods and services, and serve a greater trade area than neighborhood centers. In recent years, these centers are typically anchored by a discount or off-price department store, large chain home improvement store, or other large anchors beside full-line department stores. Community centers typically have gross leasable areas of about 150,000 square feet, but may range in size from 100,000 square feet to 300,000 square feet.

Regional Centers provide shopping goods, general merchandise, furniture, and home furnishings in full depth and variety. Anchored by at least one full-line department store of at least 100,000 square feet, typical gross leasable area within a regional center ranges from approximately 400,000 square feet up to, and over, 1.0 million square feet.

Freestanding Stores include retail outlets under single ownership and management located at separate independent locations and within strip centers which are not planned as integrated shopping complexes.

Table V-V

## PROJECTED RETAIL EXPENDITURES MORENO VALLEY PRIMARY MARKET AREA

Total Expenditures (\$1,000'S)	1986	1995	2000	2010
Food and Liquor Stores	\$116,880	\$174,817	\$296,627	\$439,376
Drugstores	\$11,039	\$16,510	\$28,015	\$41,497
Hóme Improvement	\$24,675	\$36,906	\$62,621	\$92,757
Apparel Stores	\$14,285	\$21,366	\$36,254	\$53,701
General Merchandise	\$37,661	\$56,330	\$95,580	\$141,577
Home Furnishings	\$12,987	\$19,424	\$32,958	\$48,820
Specialty/Other	\$20,129	\$30,107	\$51,086	\$75,670
Eating and Drinking	\$39,609	\$59,243	\$100,523	\$148,900
TOTAL	\$277,265	\$414,703	\$703,664	\$1,042,298

Tables V-W and V-X identify Moreno Valley's retail potential in the year 2010 based on economic modeling prepared as part of the Economic Enhancement Program, as well as the mid-range population projections presented in this document. These tables allocate projected retail expenditures between regional, community, and neighborhood centers, as well as freestanding locations.



Table V-W

**PERCENTAGE DISTRIBUTION OF TOTAL RETAIL EXPENDITURES  
BY TYPE OF RETAIL LOCATION, 2010**

	Regional	Community	Neighborhood	Freestanding
Food and Liquor Stores	5%	20%	65%	10%
Drugstores	5%	20%	70%	5%
Home Improvement	0%	55%	5%	40%
Apparel Stores	80%	10%	5%	5%
General Merchandise	70%	15%	5%	10%
Home Furnishings	10%	25%	5%	60%
Specialty/Other	60%	15%	15%	10%
Eating and Drinking	10%	20%	25%	45%

Table V-X

**ALLOCATION OF TOTAL RETAIL EXPENDITURES  
TO RETAIL LOCATIONS, 2010**

	Regional	Community	Neighborhood	Freestanding	Total
Food and Liquor Stores	\$21,969	\$87,875	\$285,594	\$43,938	\$439,376
Drugstores	\$2,075	\$8,299	\$29,048	\$2,075	\$41,497
Home Improvement	\$0	\$51,016	\$4,638	\$37,103	\$92,757
Apparel Stores	\$42,961	\$5,370	\$2,685	\$2,685	\$53,701
General Merchandise	\$99,104	\$21,236	\$7,079	\$14,158	\$141,577
Home Furnishings	\$4,882	\$12,205	\$2,441	\$29,292	\$48,820
Specialty/Other	\$45,402	\$11,350	\$11,350	\$7,567	\$75,669
Eating and Drinking	\$14,890	\$29,780	\$37,225	\$67,005	\$148,900
<b>TOTAL</b>	<b>\$231,283</b>	<b>\$227,131</b>	<b>\$380,060</b>	<b>\$203,823</b>	<b>\$1,042,297</b>

Individual types of retail facilities require different levels of sales in order to be economically viable. This is referred to as productivity requirements. Productivity requirements (the income per square foot that a business must earn to turn a profit) for different retailers are identified in Table V-Y. Based on these productivity requirements, the amount of retail space which Moreno Valley residents will support is identified in Table V-Z.

However, not all of the purchases made by Moreno Valley residents will be made within the City. Conversely, not all retail purchases which are made within the City are made by Moreno Valley residents. Conclusions of the Economic Enhancement Program regarding the net import and export of retail sales in the future identified retention rates of 80, 120, 100 and 80 percent respectively for the full range of sales categories within regional, community, neighborhood and freestanding commercial centers. Finally, Table V-AA projects the amount of retail space which can be supported within Moreno Valley in the year 2010.

Table V-Y

## INCOME PER SQUARE FOOT PRODUCTIVITY REQUIREMENTS

	Regional	Community	Neighborhood	Freestanding
Food and Liquor Stores	\$285	\$352	\$352	\$223
Drugstores	\$155	\$145	\$145	\$140
Home Improvement	\$114	\$124	\$114	\$114
Apparel Stores	\$181	\$171	\$171	\$155
General Merchandise	\$124	\$124	\$124	\$124
Home Furnishings	\$155	\$124	\$114	\$161
Specialty/Other	\$145	\$145	\$119	\$119
Eating and Drinking	\$228	\$243	\$212	\$243

Source: Wedin Associates

Table V-Z

# RETAIL SPACE SUPPORTED BY MORENO VALLEY RESIDENTS

(in square feet)

	Regional	Community	Neighborhood	Freestanding
<hr/>				
1990				
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Food and Liquor Stores	30,689	99,289	322,689	78,507
Drugstores	5,314	22,773	79,707	5,904
Home Improvement	0	163,321	16,197	129,577
Apparel Stores	94,309	12,503	6,252	6,877
General Merchandise	317,265	67,985	22,662	45,324
Home Furnishings	12,503	39,072	8,525	72,598
Specialty/Other	124,584	31,146	37,917	25,278
Eating and Drinking	26,001	48,682	69,758	109,535
TOTAL	610,665	484,771	563,707	473,600
<hr/>				
	Regional	Community	Neighborhood	Freestanding
<hr/>				
2000				
<hr/>				
Food and Liquor Stores	52,073	168,472	547,534	133,210
Drugstores	9,016	38,642	135,245	10,018
Home Improvement	0	277,121	27,483	219,864
Apparel Stores	160,022	21,215	10,607	11,668
General Merchandise	538,330	115,356	38,452	76,904
Home Furnishings	21,215	66,297	14,465	123,184
Specialty/Other	211,392	52,848	64,337	42,891
Eating and Drinking	44,118	82,603	118,364	185,857
TOTAL	1,036,166	822,554	956,487	803,596
<hr/>				
	Regional	Community	Neighborhood	Freestanding
<hr/>				
2010				
<hr/>				
Food and Liquor Stores	77,133	249,548	811,030	197,317
Drugstores	13,355	57,238	200,331	14,839
Home Improvement	0	410,483	40,709	325,672
Apparel Stores	237,031	31,425	15,712	17,283
General Merchandise	797,397	170,871	56,957	113,914
Home Furnishings	31,425	98,202	21,426	182,465
Specialty/Other	313,123	78,281	95,298	63,532
Eating and Drinking	65,349	122,355	175,326	275,299
TOTAL	1,534,813	1,218,403	1,416,789	1,190,321

Table V-AA

## NET SUPPORTABLE RETAIL SPACE, 2010

	Regional	Community	Neighborhood	Freestanding	Total
Food and Liquor Stores	61,706	299,457	811,030	157,853	1,330,046
Drugstores	10,684	68,685	200,331	11,871	291,571
Home Improvement	0	492,579	40,709	260,538	793,826
Subtotal Convenience Goods	72,390	860,721	1,052,070	430,262	2,415,443
Apparel Stores	189,625	37,709	15,712	13,827	256,873
General Merchandise	637,918	205,045	56,957	91,131	991,051
Home Furnishings	25,140	117,842	21,426	145,972	310,380
Specialty/Other	250,498	93,937	95,298	50,826	490,559
Subtotal Comparison Goods	1,103,181	454,533	189,393	301,756	2,048,863
Eating and Drinking	52,279	146,826	175,326	220,239	594,670
TOTAL SQUARE FOOTAGE	1,227,850	1,462,080	1,416,789	952,257	5,058,977
TOTAL ACREAGE	140.9	167.8	162.6	109.3	580.7

Based on a comparison of the data presented in the preceding tables, the following conclusions can be made:

- The Moreno Valley trade area will be ready to support a regional center by 1990. This estimate takes into account the assumption that approximately 20% of net per capita expenditures for all retail categories will leave the trade area, and will not be replenished by expenditures from outside the area.
- More than a doubling of the 1985 inventory of community center space (275,000 square feet) will be necessary by 1990, representing one or two new community centers (totaling 306,000 square feet). Three new community centers will be required between 1990 and 2000, and an additional three community centers will be required between 2000 and 2010.

- Nearly all of the 1990 community center demand was already under construction by 1985. This lead time is at least partly due to the substantial planning time required by major chain tenants, and the pressure to secure appropriate parcels before residential development encroaches.
- A tripling of the space devoted in 1985 to neighborhood centers and freestanding locations (345,000) can be supported by 1990. An additional 150 percent expansion can be supported between 1990 and 2010. By the year 2010, Moreno Valley can support nearly seven times the 1985 commercial space devoted to neighborhood centers and freestanding locations.
- Traditional size and location differences between community centers and neighborhood centers have begun to blur. Given the accelerated rate of community center development, including some centers double the average size, fewer neighborhood centers may be needed than otherwise would be assumed. On the other hand, expanded community centers can also relieve the pressure for regional centers.

While Moreno Valley has yet to enter the phase of evolutionary commercial growth which demands increasing levels of office development, it can be anticipated that the demand for office space will expand dramatically in future years. As part of the Economic Enhancement Program, it was estimated that the 1985 demand for general office space was at least 100,000 square feet. This can be expected to grow to at least 600,000 to 1,000,000 square feet by 1995, depending on the City's employment growth strategy.

An important issue regarding Moreno Valley's retail and commercial environment involves the amount of regional, community, neighborhood shopping centers, as well as office and other freestanding commercial facilities that will be needed. In order to weigh the possibilities, the City must take into account the number and location of appropriate sites, the potential adverse effects of added commercial traffic, and the potential gain in



sales tax revenues that would otherwise leak to other areas. The year 2010 projections described above offer an indication of the amount of commercial land which might be required to support a population of 214,000, and can be used to determine commercial land requirements for buildout conditions.

The issue of a "downtown" retail center is often raised. At present, most commercial and retail uses are on or near Sunnymead and Alessandro Boulevards. The Riverside International Raceway site has also been suggested as a mixed use development focused around an office/retail downtown.

The Economic Enhancement Program also notes the potential for growth of tourism and commercial recreation. These markets would most likely require hotel and golf course development within the study area.

**(3) Residential Sector.** One of the first indications of a community's desirability as a place to live and do business is reflected in the nature and availability of its housing stock. The overall quality of housing, its general appearance, the range and availability of housing for single persons, families, and retired persons, as well as the range and availability of housing for both workers and executives, are all significant elements of the decision-making process affecting individuals, businesses, and industrial firms which may consider Moreno Valley as a location. An integrated community development program must therefore consider housing and related environmental and aesthetic aspects of the community as an integral part of its economic development program.

Moreno Valley's population and consequent housing growth have been explosive in the past decade. As discussed in the Population and Housing section of this document, there were 65,380 people and 23,251 dwelling units within the City of Moreno Valley as of January 1986. This is more than double the 1980 totals. In addition, future growth is expected to approximately equal the 1980 to 1986 rate.

The residential market will be sustained by this continued population growth. It is expected that a substantial portion of the study area's population growth will occur in the 22 to 44 year age group. This group accounts for the majority of new home buyers.

Several factors will moderate the year to year performance of the residential market in the study area, which may affect the realization of the projections cited above. First, home loan interest rates fluctuate, and are not subject to local control. When interest rates are relatively low, as they are currently, home sales are accelerated. Higher interest rates impact both home loans and construction lending, thereby dampening both home sales and the production of new units.

Land values are a second factor. In the recent past, land costs in the Moreno Valley study area were markedly lower than the rest of the urbanized Southern California region, and somewhat lower than the remainder of central western Riverside County. However, land values have risen as the western and central portions of the study area have filled in, which in turn has increased home sales prices and tempers the study area's competitive advantage over other fast-growing cities nearby, including Colton, Perris, Banning, and Hemet. Moreno Valley retains its competitive advantage in residential land costs as compared to the cities of Corona and Riverside to the west.

Local regulations and developer fees can also affect land values and housing prices which, in turn, influence housing production. Regulations and fees which substantially exceed the norm for the subregion may lead to slower housing starts and higher sales prices, which may depress the local residential market unless the public perceives that the product is thereby superior and can afford to purchase it. Comparative research has indicated that development fees in the City of Moreno Valley are similar to other agencies in the area, and therefore do not create any unusual or excessive constraints to the production of housing.

Finally, the housing mix will affect the residential market. Local development regulations and regional housing demand will shape the proportion of single family to multiple family housing that occurs from year to year. The study area's major appeal in the residential marketplace has been single-family detached homes at prices at or below \$100,000. As of the end of 1984, the median sales price in the Sunnymead/Edgemont area was \$86,300, approximately four percent below the median for central western Riverside County. About 98 percent of homes sold in 1984 were single family detached units.

Since 1984, a significant amount of rental housing has been constructed within Moreno Valley. However, the proportion of attached housing in 1986 (11.5 percent) is less than it was in 1980 (18.8 percent). A major issue will be determining the proper percentage of multiple family housing to support future economic growth in Moreno Valley. Studies prepared for The Ontario Center, a large, master planned commercial/industrial complex, suggest that up to 50 percent of the workers within that development will choose rental housing. While 50 percent may be an excessive figure for Moreno Valley given its relatively low housing costs, it can be concluded that, as commercial and industrial uses expand within Moreno Valley, an increasing proportion of multiple family housing will be required.

Housing construction has been the study area's primary economic product in recent years, eclipsing the area's past agricultural productivity. Because of its importance in recent years, the housing market presents issues and opportunities that are critical to the area's long-term development and stability.

For example, City regulations and developer fees can be controversial. They can also have a direct impact on the cost and quality of housing, which affects the study area's competitive advantage in the housing market. The General Plan provides an opportunity to explore the relative advantages of regulations that encourage a greater diversity of housing types, or which limit the types of housing to those which have been found to be beneficial to the community.

As the study area population grows and ages, and as commercial/industrial activities in the study area increase, more housing opportunities in the moderate and upper-income housing brackets will likely be desirable. If such opportunities are not or cannot be provided, the area's generally upwardly-mobile population may elect to move elsewhere in order to trade up to higher quality housing. In addition, the lack of availability of nearby executive housing in desirable locations may inhibit the potential for commercial/industrial growth.

Likewise, regulations and building standards have the opportunity to enhance the future resale rates and housing values of the thousands of units that will be built before the turn of the century. Good quality, competitively-priced housing is likely to appreciate, inspire good maintenance, and attract resale buyers.

As the study area population ages slightly toward the year 2010, the opportunities and need for senior citizen housing will increase. Otherwise, long-term residents may move elsewhere for affordable, easy-to-maintain, and conveniently located housing.

Housing mix is both an issue and an opportunity. Depending on the balance struck by the City, the community can become either a long-term place of residence for young families that can transition from one type of housing to another as household size and income increase, or it will serve the needs of households seeking affordable single family homes for a limited period in their cycle of change. A diversity and balance of housing products will lead to a more stable residential market in the future.



## b. COMMUNITY ECONOMIC DEVELOPMENT STRATEGY

Under the current rules governing municipal finance, the costs of providing services to residential areas generally exceed the direct revenues they generate for the City. Notable exceptions are very high priced developments and "adult-only" projects which do not generate any school-aged children. In order for the City of Moreno Valley to afford to provide the residential amenities and levels of municipal services desired by its residents, a balancing of residential, commercial, and industrial land uses is necessary.

To date, the City's economic base has increased as a direct result of increases in its residential base. However, continued economic growth will depend largely upon the study area's ability to compete for additional jobs and revenue-generating business and industry. As noted earlier in this section, there is significant competition for industry and major commercial facilities in western Riverside and San Bernardino counties as a number of cities have available sites to satisfy demand well into the future. An economic development strategy will be needed to guide future commercial and industrial growth, as well as continued success in the residential market. Such a strategy would identify potential markets, and recommend the tools and actions needed to capitalize upon opportunities.

The City of Moreno Valley Economic Enhancement Program, prepared by Wedin Enterprises, has recommended a strategy for the City of Moreno Valley which relies on several key features:

- **Infrastructure Financing Plans.** Prepare a strategy and resources for completing the study area's roads, sewers, utilities and other basic services necessary to support desired commercial and industrial growth.
- **New Revenue Sources for Retail and Industrial Markets.** Cultivate tourism and commercial recreation opportunities. The economic consultant noted that tourists spend roughly \$35.50 per day at their destination, providing an immediate infusion to the local economy.



- **Marketing Program.** Establish an aggressive program to establish a positive image for the City of Moreno Valley as an ideal place in which to do business and to directly market targeted industries.
- **Diversified Retail Opportunities.** Provide a greater variety of goods and services available to residents and employers.
- **Balanced, Quality Residential Growth.** Increase housing options for senior citizens and higher cost housing to create a more balanced spectrum of choices for the current and near-future population.
- **Incentives to Locate in Moreno Valley.** Residential, commercial, and industrial projects can be attracted to the study area by a competitive package of incentives including the following:
  - Redevelopment Agency financing
  - Assessment Districts
  - Mello-Roos Community Facilities Districts

These key incentives are now under investigation by the City to determine where and when they can be used. For example, redevelopment is frequently named as a means of revitalizing older neighborhoods and commercial areas in the oldest parts of the study area, which were built for rural rather than the current heavy urban uses. Redevelopment enables the City to employ tax increment financing for important projects and enhancements. The City has recently formed a redevelopment agency,<sup>22</sup> and is presently investigating initial projects for Sunnymead Boulevard and the Edgemont area.

The City is also exploring financing mechanisms that will allow it to provide loans or seed money to beneficial projects. Assessment districts and Mello-Roos Districts are also being discussed as sources of funds to expand local infrastructure and facilities, such as schools and parks.

<sup>22</sup>Subsequent to original publication, the City of Moreno Valley has formally adopted a Redevelopment Plan.

The Moreno Valley Economic Enhancement Program, prepared by Wedin Enterprises in 1985, suggests that the City pursue a diversity of smaller businesses to build a stable, recession-resistant employment base. Local job-growth proponents also recommend that large employers be induced to locate in Moreno Valley. In addition, the issue of incentives must be addressed. Tax breaks, site improvements, and other inducements to industrial location within the study area may be worthwhile if applied judiciously.

The City's Economic Enhancement Program concluded that the industries with the greatest potential for the study area, and those which should be targeted, include: food and related products, fabricated metal products, transportation equipment, chemicals and allied products, electrical and electronic equipment, furniture and fixtures, rubber and plastic products, paper and allied products, products for construction and home and building industries, mobile home and RV assembly, and smaller multi-tenant industries.

Wedin Enterprises, the City's economic consultant, also endorses the concept of an industrially oriented airpark development as a potential focus for further industrial expansion if environmental issues can be worked out.

## G. CIRCULATION/TRANSPORTATION

### 1. EXISTING SETTING

The Moreno Valley study area possesses a comprehensive transportation network within the existing urbanized areas with significant regional connections. The study area's transportation system consists of interstate and state highways, local surface streets, public transit, and rail.

#### a. INTERSTATE AND STATE HIGHWAYS

Interstate 215 (I-215) is the major north-south transportation route within the Moreno Valley study area, connecting Moreno Valley to San Diego County. Although I-215 is not technically a federally funded interstate highway, an agreement was reached with the State that if I-215 was built to federal size and standards, the route would be allowed to bear interstate status. The portion of I-215 which currently passes through the study area has not yet been modified to meet federal standards; however improvement plans are underway. According to the California Department of Transportation (Caltrans), current average daily traffic (ADT) on I-215 at State Route 60 is 40,000 vehicles.

The Pomona Freeway (State Route 60) is the major east-west transportation route within the study area. The Pomona Freeway connects Moreno Valley with the coastal cities and the greater Los Angeles area to the west, as well as merging into Interstate 10 to the east, and leading to the communities of Beaumont, Banning, and Palm Springs. Interstate 10 is the major route connecting Southern California to the states of Arizona, New Mexico, Texas, and the Gulf States. As such, this route carries a significant amount of traffic through the City of Moreno Valley. According to Caltrans, current ADT on State Route 60 at I-215 is 58,000 vehicles.

#### b. LOCAL SURFACE ROUTES

The City of Moreno Valley possesses an extensive developed surface roadway system. The major east-west roadways are Sunnymead Boulevard and Alessandro Boulevard. Sunnymead Boulevard serves as the traditional commercial corridor of Moreno Valley. Alessandro Boulevard serves as the developing commercial and industrial corridor at its westerly end. Other major east-west routes within the study area are, from north to south, Ironwood Avenue, Eucalyptus Avenue, and Cottonwood Avenue. Traffic counts were taken for the above named streets in March, April, and May of 1986 by the City Engineer. Traffic counts along the busiest streets are summarized in Table V-BB.

Additional north-south regional access could be provided by the construction of Davis Road south from Theodore Street to the Ramona Expressway and beyond, along the easterly side of Lake Perris. The Davis Road extension is currently included in the Riverside County circulation element as a Specific Plan Arterial Highway with a right-of-way of 110 feet. In addition, the Davis Road extension has been included in regional transportation plans by the Southern California Association of Governments and Caltrans as a future freeway route, along the Davis Road alignment to the south through Moreno Valley along Theodore Road, connecting to Redlands Boulevard, and extending north into the Redlands area.

Local surface routes within the City of Moreno Valley are maintained by the City including signage and striping. Local developers are typically responsible for street construction and improvements within and adjacent to their project site. The City is also responsible for traffic signalization. There are presently 16 existing traffic signals in operation; an additional 13 are planned to be constructed by March 1989.

Table V-BB

## 1986 TRAFFIC COUNTS

Street	From	To	Total
Sunnymead Blvd.	Frederick St.	Heacock St.	11,366
	Heacock St.	Freeway Off-Ramp	15,382
	Freeway Off-Ramp	Perris Blvd.	20,092
	Perris Blvd.	Kitching St.	2,175
Alessandro Blvd.	Interstate 215	Frederick St.	26,192
	Frederick St.	Heacock St.	24,312
	Heacock St.	Indian Ave.	25,883
	Indian Ave.	Perris Blvd.	16,789
	Perris Blvd.	Redlands Blvd.	22,443
	Redlands Blvd.	Virginia St.	3,005
Perris Blvd.	Southern City Limits	J.F.K. Dr.	14,394
	J.F.K. Dr.	Alessandro Blvd.	20,803
	Alessandro Blvd.	Eucalyptus Ave.	21,569
	Eucalyptus Ave.	Sunnymead Blvd.	23,827
Heacock St.	Ironwood Ave.	Sunnymead Ranch Pkwy.	8,432
	Eucalyptus Ave.	Sunnymead Blvd.	17,068
Heacock St./ Reche Vista Dr.	Sunnymead Ranch Pkwy.	Northern City Limits	3,631

Source: Muse Consulting, Inc.

## C. ROADWAY LEVELS OF SERVICE

"Level of service" is used to describe the quality of traffic flow. Levels of Service A to C operate quite well. Level of Service D is characterized by fairly restricted flow. Table V-DD identifies the various levels of service and resulting traffic flow quality.



Table V-CC

## LEVEL OF SERVICE DESCRIPTIONS

Level of Service	Traffic Flow Quality
A	Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting more than one cycle.
B	Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak periods.
C	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak hours; recommended ideal design.
D	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles wait through more than one signal cycle during peak traffic periods; often used as the design standard in urban areas.
E	Traffic at the maximum volume intersections can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak periods.
F	Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero.

Source: Highway Capacity Manual, Highway Research Board Special Report 87, National Academy of Sciences; Kunzman Associates.

Based on the objective of maintaining Level of Service "C" along area roadways, roadway capacities are outlined in Table V-DD.

Table V-DD

### ROADWAY CAPACITIES

(Average Daily Traffic  
at Level of Service C)

Freeway	115,000
Urban Arterial	45,000
Arterial	30,000
Secondary	20,000
Collector	10,000

d. PUBLIC TRANSIT

The Riverside Transit Agency (RTA) presently operates seven fixed routes within the study area (see Table V-EE). Base fare is \$.55 per adult with senior citizen discounts.

Table V-EE

## MORENO VALLEY STUDY AREA BUS ROUTES

Route	Destination	Frequency
1	U.C. Riverside, Downtown Riverside, Riverside Community College, Tyler Mall, Loma Linda University/La Sierra	Every 30 Minutes
2	Riverside County Building, Downtown Building, Riverside Community College, Tyler Mall	Every 30 Minutes
13	Tyler Mall, Riverside Community College, Downtown Riverside	Hourly
16	Downtown Riverside, Riverside Raceway, March Air Force Base, Moreno Valley	Every 30 Minutes
18	Moreno Valley	Hourly
19	Moreno Valley, Perris	Every 80 Minutes
25	Downtown Riverside, Loma Linda	Every 100 Minutes

Questions regarding information and schedules can be referred to the RTA at (714) 682-1234.

e. RAILROAD

The Atchison, Topeka and Santa Fe Railroad maintains a rail line west of and parallel to I-215. This is a service line track which carries a low volume of freight trains to and from industrial, commercial, and agricultural areas, south of the study area. The only operating rail spurs within the study area are located on March Air Force Base. Service is not presently available within the City.

2. ISSUES AND OPPORTUNITIES

a. TRAFFIC CAPACITY CONSTRAINTS

The City of Moreno Valley faces several constraints in providing an adequate circulation system. First, the City is, at present, job-poor, requiring residents to commute to distant job centers. The City's location at the eastern margin of the Los Angeles metropolitan area, combined with the valley's lack of regional access routes, means that the AM and PM peak hour traffic flow is highly directional, and is concentrated onto the Pomona Freeway: westerly in the AM, and easterly in the PM. In addition, regional systems, including the Pomona Freeway (SR 60) in eastern Los Angeles County, and the Riverside (SR 91), Newport (SR 55), and Orange (SR 57) freeways in Orange County are highly congested during morning and afternoon peaks.

Further complicating Moreno Valley's circulation system is the close proximity of cross-streets along major roadways having interchanges along the Pomona Freeway. This multiplicity of intersections creates poor circulation along roadways leading to and from the major freeway connection to regional job centers. In addition to the multiplicity of intersections, the geometrics of individual interchanges and narrow freeway over- and under-crossings limit traffic capacity entering and exiting the freeway, further congesting nearby intersections.

In particular, the Pigeon Pass/Frederick, Heacock, and Perris Boulevard interchanges face serious problems due to poor geometrics and lack of available land for expanding rights-of-way and creating looped on- and off-ramps to eliminate conflicting left-turn movements. The lack of an interchange at Lasselle creates further congestion at the Perris Boulevard interchange. The lack of an additional freeway crossing at Graham (as is provided by Indian Avenue) also adds to congestion at the Perris and Heacock interchanges.

Another circulation constraint is the presence of March Air Force Base along the southwesterly boundary of the City. The presence of the base cuts off access from the southwesterly portion of the City west to Interstate 215, concentrating traffic north along Heacock and Perris to the Pomona Freeway, or along Alessandro Boulevard.

Although implementation of the Moreno Valley General Plan will significantly increase traffic generation, the completion of the circulation system outlined in the Circulation Map (Figure 43) commensurate with land development will provide a satisfactory level of service in nearly all portions of the City. As identified in the objectives and policies for the General Plan, Level of Service "C" has been selected as the design objective for roadway operations within Moreno Valley. It is recognized, however, that roadway operations at Level of Service "D" may occur during peak hours and at certain intersections. In particular, north-south roadways in the vicinity of the Pomona Freeway have geometric constraints which will prevent Level of Service C from being achieved. In other cases, peak hour intersection traffic may operate at Level of Service D due to high employment concentrations.

Finally, the lack of collector roadways hampers traffic flows in several portions of the City. While the older portions of Moreno Valley south of the Pomona Freeway generally have a well defined system of collector roadways (e.g. Graham, Fir, Brodaeia) the capacity of the collector system has, in many cases been diminished by having numerous residential and commercial parcels front upon and take direct access from these roads. Thus, in many cases, the collector system functions as local service streets.



In addition, as subdivision activity occurred north of the Pomona Freeway prior to incorporation, little attention was paid to establishing a collector system, especially east-west through roadways. Thus, traffic within the northerly portion of the City is concentrated onto the major north-south routes and onto Ironwood Avenue.

b. PROJECTED TRAFFIC VOLUMES

Traffic volumes will increase significantly as urban and rural development occurs consistent with the General Plan. The Moreno Valley General Plan Circulation Map outlines the roadway system required to support planned development while maintaining adequate levels of service. Traffic will also increase along Interstate 215 and State Route 60 as they pass through the study area. Projected traffic volumes along area roadways are presented in Table V-FF.

Table V-FF

## PROJECTED TRAFFIC VOLUMES

Roadway	Future <sup>1</sup> A.D.T.	Roadway	Future <sup>1</sup> A.D.T.
<b>Old Lake Drive</b>		<b>Cottonwood Avenue (Cont.)</b>	
Link 1	7,500	Link 21	14,360
<b>Sunnymead Ranch Parkway</b>		Link 22	17,140
Link 101	5,740	Link 23	17,470
Link 2	7,870	Link 118	16,710
Link 102	8,290	Link 24	8,030
<b>Locust Avenue</b>		Link 25	5,620
Link 3	1,040	Link 26	5,690
<b>Ironwood Avenue</b>		Link 119	5,680
Link 103	16,340	Link 120	5,830
Link 104	13,740	Link 121	6,490
Link 4	13,100	<b>Alessandro Boulevard</b>	
Link 5	11,670	Link 122	2,830
Link 6	11,640	Link 123	8,970
Link 7	13,660	Link 27	21,660
Link 105	9,550	Link 124	20,200
Link 8	5,160	Link 28	17,680
Link 9	3,480	Link 29	29,030
Link 10	230	Link 30	26,760
<b>Sunnymead Boulevard</b>		Link 31	32,000
Link 11	17,340	Link 125	32,890
Link 12	14,380	Link 32	31,740
Link 13	7,380	Link 33	33,260
<b>Eucalyptus Avenue</b>		Link 126	11,690
Link 14	11,740	Link 127	15,320
Link 106	14,340	Link 128	26,620
Link 107	6,040	Link 129	19,360
Link 108	12,870	Link 130	16,240
Link 15	13,330	Link 34	2,420
Link 109	15,430	Link 35	3,050
Link 16	23,050	Link 36	1,360
Link 17	12,480	<b>Cactus Avenue</b>	
Link 110	14,380	Link 131	19,680
Link 111	10,720	Link 37	23,370
Link 112	17,050	Link 132	18,250
Link 113	9,820	Link 38	18,210
Link 114	10,200	Link 133	14,950
Link 115	13,640	Link 39	7,700
<b>Cottonwood Avenue</b>		<b>John F Kennedy Drive</b>	
Link 116	4,410	Link 40	7,330
Link 18	9,640	Link 41	7,810
Link 117	11,220	Link 42	5,940
Link 19	14,700	Link 134	10,610
Link 20	17,040	Link 135	19,470

<sup>1</sup> A.D.T. is the average daily two-way traffic volume.

Table V-FF

# PROJECTED TRAFFIC VOLUMES (cont'd)

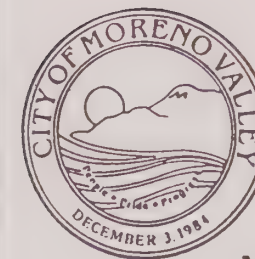
Roadway	Future <sup>1</sup> A.D.T.	Roadway	Future <sup>1</sup> A.D.T.
<b>Iris Avenue</b>		<b>Nason Street</b>	
Link 136	7,650	Link 54	13,620
Link 137	8,220	Link 55	13,230
Link 138	11,200	Link 161	17,200
<b>Mariposa Avenue</b>		Link 56	20,700
Link 139	850	<b>Lasselle Street</b>	
Link 140	3,460	Link 162	11,140
Link 141	5,340	Link 163	11,820
<b>Oleander Avenue</b>		Link 57	18,490
Link 142	9,240	Link 58	15,340
Link 143	8,040	Link 59	20,140
Link 144	7,460	Link 164	19,990
<b>Theodore Street</b>		Link 165	26,150
Link 43	3,900	Link 166	11,620
Link 145	14,330	<b>Kitching Street</b>	
Link 44	7,480	Link 167	5,530
Link 146	6,030	Link 168	8,090
Link 147	4,750	Link 169	13,860
Link 148	4,740	Link 62	15,830
Link 149	4,110	Link 170	6,190
<b>Redlands Boulevard</b>		Link 171	16,560
Link 45	13,540	Link 172	14,300
Link 46	20,100	<b>Perris Boulevard</b>	
Link 47	17,670	Link 63	18,460
Link 48	3,560	Link 64	15,580
Link 49	5,310	Link 65	19,440
Link 150	4,730	Link 173	19,510
Link 151	15,940	Link 66	20,950
Link 152	17,870	Link 174	19,910
<b>Moreno Beach Drive</b>		Link 67	22,680
Link 153	4,680	Link 68	22,130
Link 154	5,430	Link 175	16,640
Link 50	8,510	Link 176	10,460
Link 155	13,540	<b>Indian Avenue</b>	
Link 51	12,570	Link 70	30,450
Link 52	13,590	Link 71	20,820
Link 156	18,880	Link 72	18,010
Link 53	14,050	Link 73	10,280
Link 157	21,390	Link 177	10,520
Link 158	29,440	Link 74	6,820
Link 159	28,850	Link 75	12,150
Link 160	28,620	Link 178	9,420
		Link 179	6,850

<sup>1</sup> A.D.T. is the average daily two-way traffic volume.

Table V-FF

**PROJECTED TRAFFIC VOLUMES**  
(cont'd)

Roadway	Future <sup>1</sup> A.D.T.
<b>Heacock Street</b>	
Link 76	8,840
Link 77	16,500
Link 78	24,640
Link 79	23,490
Link 180	16,570
Link 80	22,080
Link 181	20,680
Link 182	23,070
Link 183	15,440
Link 184	3,730
Link 185	3,420
<b>Graham Street</b>	
Link 81	7,980
Link 82	6,610
Link 83	8,350
<b>Pigeon Pass Road</b>	
Link 85	10,070
Link 86	22,200
Link 87	26,880
<b>Frederick Street</b>	
Link 88	29,680
Link 186	20,300
Link 89	16,210
Link 187	5,570
Link 188	11,530
<b>Elsworth Street</b>	
Link 189	6,220
Link 90	6,550
<b>Day Street</b>	
Link 92	20,280
Link 190	11,940
Link 194	6,710



## MASTER PLANNED ROADWAY LINKS ANALYZED

### LEGEND

**131** ROADWAY LINK  
NUMBER

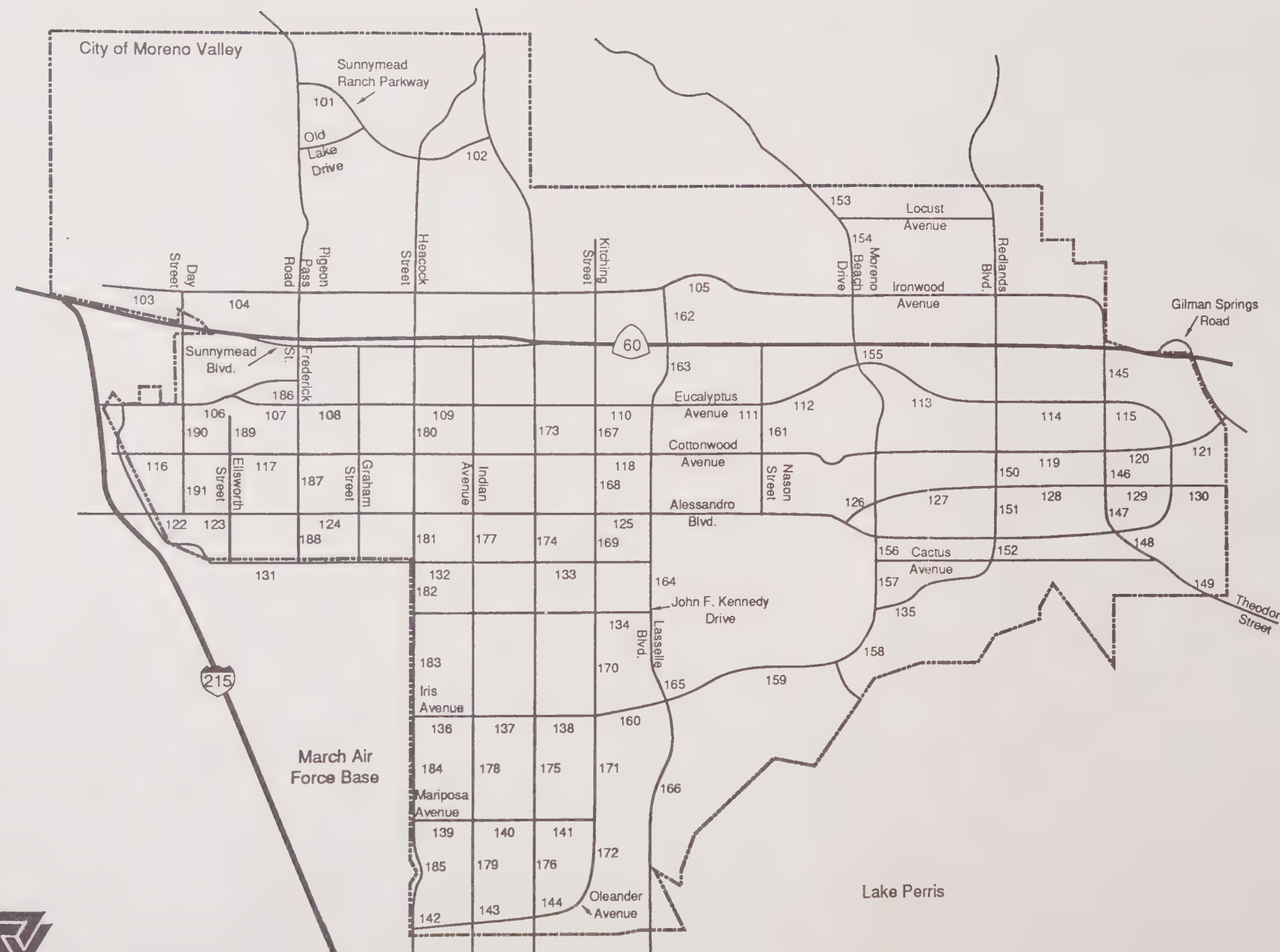


Exhibit to Table V-FF







#### C. PLANNING FOR STATE HIGHWAY IMPROVEMENTS

Because of the extreme congestion that occurs at many of the interchanges along State Route 60, the City Engineer has analyzed interchange geometrics, and has prepared preliminary designs for interchange widening and improvements. In addition, other improvements along State Route 60 will need to be provided. These additional improvements include acquiring rights-of-way and financing for widening the freeway to include three or four travel lanes in each direction, placing ramp metering hardware on freeway on-ramps, widening bridges crossing State Route 60, and providing a park-and-ride facility for 200 or more vehicles near the State Route 60 - Interstate 215 interchange. Ultimate funding is expected to come from a combination of State funds, redevelopment funds, and other locally generated funds.

Interstate 215 is currently scheduled by Caltrans for realignment and upgrading to a six-lane freeway, interstate highway status between Van Buren Boulevard and SR 60 by 1988, and from Van Buren to Nuevo Road (City of Perris) by 1991. This upgrading provides opportunities for new interchanges that could better handle the study area's growing traffic. In particular, the proposed Oleander Street interchange will create significant industrial opportunities, while creating an outlet for traffic generated by the Moreno Valley Ranch project on the south side of the City. This would relieve traffic on alternate local surface routes as well.

#### d. LOCAL SURFACE ROUTE PLANNING

Rapid development within the Moreno Valley study area has lead to significant increases in local traffic volumes throughout. In response to the increased amount of traffic congestion and lowering level of service throughout the City, the City Engineer has initiated a study of the current traffic congestion, roadway capacities, traffic patterns, and design configurations.

Currently, the study area contains numerous examples of undersized streets, incomplete streets, streets with missing or unpaved sections, and streets that continually widen and narrow. All of these roadway problems are due to the inadequacy of rural roads to serve urban needs, as well as the time lag that occurs between rapid residential growth and trailing public revenues generated to provide better roads. In addition, this situation has occurred since area roadways have been almost exclusively constructed by individual developers as part of specific projects, with construction requirements generally limited to those either within or adjacent to the project.

Similar to flood control and other infrastructure facilities, the road system within the study area has fallen far behind the rapid urban growth that is presently occurring. Although developers provide for adequate onsite surface streets within their project area, there is little provision for construction of offsite circulation and arterial roads within the City. The City has the opportunity as part of the General Plan to provide for a more thorough examination of offsite traffic impacts, including roads and transportation, and to implement a Citywide program of monitoring local traffic levels to aid in planning of current and future roadway capacities. In addition, financing mechanisms such as benefit-assessment districts, Mello-Roos Community Facilities Districts, and redevelopment funds may be used to facilitate road construction in anticipation of needs.

#### e. BICYCLE ROUTES

Bicycle travel can be enhanced by improved maintenance and by upgrading existing roads used regularly by bicyclists, regardless of whether or not bikeways are designated. This effort requires increased attention to the right-hand portion of roadways where bicyclists are expected to ride. On new construction and major reconstruction projects, adequate width should be provided to permit shared use by motorists and bicyclists. When placing a roadway edge stripe, sufficient room outside the stripe should be provided for bicyclists. When

considering the restriping of roadways for more traffic lanes, the impact on bicycle travel should be assessed. These efforts to preserve or improve an area for bicyclists to ride can benefit motorists as well as bicyclists.

**(1) The Role of Bikeways.** Bikeways are one element of an effort to improve bicycling safety and convenience--either to help accommodate motor vehicle and bicycle traffic on shared roadways, or to complement the road system to meet needs not adequately met by roads. Off-street bikeways in exclusive corridors can be effective in providing new recreational opportunities, or in some instances, desirable commuter routes. They can also be used to close gaps where barriers exist to bicycle travel (e.g., storm channels). On-street bikeways can serve to enhance safety and convenience, especially if other commitments are made in conjunction with establishment of bikeways, such as elimination of parking or increasing roadway width, elimination of surface irregularities and roadway obstacles, frequent street sweeping, establishing intersection priority on the bike route street as compared with the majority of cross streets, and installation of bicycle-sensitive loop detectors at signalized intersections.

**(2) The Decision to Develop Bikeways.** The decision to develop bikeways should be made with the knowledge that bikeways are not the solution to all bicycle-related problems. Many of the common problems are related to improper bicyclist and motorist behavior and, can only be corrected through effective education and enforcement programs. The development of well conceived bikeways can have a positive effect on bicyclist and motorist behavior. Conversely, poorly conceived bikeways can be counterproductive to education and enforcement programs.

The type of facility to select in meeting the bicycle need is dependent on many factors, but the following applications are the most common for each type:

#### Shared Roadway (No Bikeway Designation).

Most bicycle travel in the state now occurs on streets and highways without bikeway designations. This will probably be true in the future as well. In some instances, entire street systems may be fully adequate for safe and efficient bicycle travel, and signing and striping for bicycle use may be unnecessary. In other cases, routes may be unsuitable for bicycle travel, and it would be inappropriate to encourage additional bicycle travel by designating the routes as bikeways. Finally, routes may not be along high bicycle demand corridors, and it would be inappropriate to designate bikeways regardless of roadway conditions (e.g., on minor residential streets).

Many rural roads are used by touring bicyclists for intercity and recreational travel. In most cases, it would be inappropriate to designate the roads as bikeways because of the limited use and the lack of continuity with other bike routes. (The exception would be for those county roads designated as regional bikeways.) However, the development and maintenance of 4-foot paved roadway shoulders with a standard 4-inch edge stripe can significantly improve the safety and convenience for bicyclists and motorists along such routes.

Class I Bikeway (Bike Path). Generally, bike paths should be used to serve corridors not served by streets or where wide rights-of-way exist, permitting such facilities to be constructed away from the influence of parallel streets. Bike paths should offer opportunities not provided by the street system. They can either provide a recreational opportunity, or in some instances, can serve as direct high-speed commute routes if cross flow by motor vehicles can be minimized. The most common applications are along rivers, ocean fronts, canals, utility rights-of-way, within college campuses, or within and between parks. The state aqueduct right-of-way within Moreno Valley provides a unique opportunity to utilize this type of corridor. There may also be situations where such facilities can be provided as part of planned developments. Another common application of Class I facilities is to close gaps for bicycle travel caused by construction of freeways or because of the existence of natural barriers.



Class II Bikeway (Bike Lane). Bike lanes are established along streets in corridors where there is significant bicycle demand, and where there are distinct needs that can be served by them. The purpose should be to improve conditions for bicyclists in the corridors. Bike lanes are intended to delineate the right-of-way assigned to bicyclists and motorists, and to provide for more predictable movements by each. But a more important reason for constructing bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. This can be accomplished by reducing the number of lanes, or by prohibiting parking on given streets in order to delineate bike lanes. In addition, other things can be done on bike lane streets to improve the situation for bicyclists that might not be possible on all streets (e.g., improvements to the surface, augmented sweeping programs, special signal facilities, etc.). Generally, stripes alone will not measurably enhance bicycling.

If bicycle travel is to be controlled by delineation, special efforts should be made to assure that high levels of service are provided with these lanes.

Class III Bikeway (Bike Route). Bike routes are shared facilities which serve either to:

- (a) Provide continuity to other bicycle facilities (usually Class II bikeways); or
- (b) Designate preferred routes through high demand corridors.

As with bike lanes, designation of bike routes should indicate to bicyclists that there are particular advantages to using these routes as compared with alternative routes. This means that responsible agencies have taken actions to assure that these routes are suitable as shared routes and will be maintained in a manner consistent with the needs of bicyclists. Normally, bike routes are shared with motor vehicles. The use of sidewalks as Class III bikeways is strongly discouraged.

It is emphasized that the designation of bikeways as Class I, II, and III should not be construed as a hierarchy of bikeways, and that one is better than the other. Each class of bikeway has its appropriate application.

In selecting the proper facility, an overriding concern is to ensure that the proposed facility will not encourage or require bicyclists or motorists to operate in a manner that is inconsistent with the rules of the road.

An important consideration in selecting the type of facility is continuity. Alternating segments of Class I and Class II (or Class III) bikeways along a route are generally incompatible, as street crossings by bicyclists are required when the route changes character. Also, wrong-way bicycle travel will occur on the street beyond the ends of bike paths because of the inconvenience of having to cross the street.

**(3) Design Criteria.** A detailed discussion of design criteria will not be attempted here as that material is available in the Caltrans Highway Design Manual, Chapter 1000, Topic 1003. However, relevant points will be reviewed.

Class I. Class I bikeways (bike paths) are facilities with exclusive right of way, with cross flows by motorists minimized. Section 2373 of the Streets and Highways Code describes Class I bikeways as serving "the exclusive use of bicycles and pedestrians." However, experience has shown that if significant pedestrian use is anticipated, separate facilities for pedestrians are necessary to minimize conflicts.

Sidewalk facilities are not considered Class I facilities because they are primarily intended to serve pedestrians, generally cannot meet the design standards for Class I bikeways, and do not minimize motorist cross flows.

The minimum paved width per Caltrans standards for a two-way bike path is eight (8) feet. However, the Moreno Valley Citizen's Advisory Committee recommends that ten (10) feet be adopted as the minimum Class I bike path width in the City of Moreno Valley. Also, a minimum two-foot wide graded shoulder should be provided adjacent to the paved area.

Where heavy bicycle volumes are anticipated and/or significant pedestrian traffic is expected, the paved width of a two-way bike path (Class I) should be greater than 10 feet, preferably twelve (12) feet or more. Dual use by pedestrians and bicycles is undesirable, and the two should be separated wherever possible. Another important factor to consider in determining the appropriate width is that bicyclists will tend to ride side by side on bike paths, necessitating more width for safe use.

Other details which must be addressed in the actual design are:

- Horizontal and vertical clearance to obstructions.
- Striping and signing.
- Intersections with streets.
- Separation between bike paths and streets.
- Design speed.
- Horizontal alignment and superelevation.
- Stopping sight distance.
- Length of crest on vertical curves.
- Grades (rate of ascent).
- Structural section.
- Drainage.
- Barrier posts.

Class II Bikeways. Class II bikeways (bike lanes) for preferential use by bicycles are established within the paved area of streets. Bike lane stripes are intended to promote an orderly flow of traffic by establishing specific lines of demarcation between areas reserved for bicycles and lanes to be occupied by motor vehicles. This effect is supported by bike lane signs and pavement markings. With more certainty as to where bicyclists will be, passing motorists are less likely to swerve toward opposing traffic in making certain they will not hit bicyclists.

Bike lanes should be one-lane facilities with a minimum width of four feet, as measured to curb face. Further, the minimum asphalt portion of the bike lane should be three feet wide. On streets without curb and gutter, the minimum bike lane width is also four feet.

Bike lanes are not advisable on long, steep down grades where bicycle speeds greater than 30 miles per hour are expected. As grades increase, downhill bicycle speeds will increase, which increases the problem of riding near the edge of the roadway. In such situations, bicycle speeds can approach those of motor vehicles, and experienced bicyclists will generally move into the motor vehicle lanes to increase sight distance and maneuverability. If bike lanes are to be striped in these cases, then additional width should be provided to accommodate higher bicycle speeds.

Class III Bikeways. Class III bikeways (bike routes) are intended to provide continuity to the bikeway system. Bike routes are established along through routes not served by Class I or II bikeways, or to connect discontinuous segments of bikeway (normally bike lanes). Class III facilities are shared facilities, either with motor vehicles on the street, or with pedestrians on sidewalks, and in either case bicycle usage is secondary. Class III facilities are established by placing Bike Route signs along roadways.

Minimum widths for Class III bikeways are not proposed because the acceptable width is dependent on many factors, including the volume and character of vehicular traffic on the street, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions. Since

bicyclists are permitted on all streets and highways (except prohibited freeways), the decision to sign the route should be based on the advisability of encouraging bicycle travel on the route and if some of the following criteria are met:

- They provide for through and direct travel in bicycle-demand corridors.
- They connect discontinuous segments of bike lanes.
- An effort has been made to adjust traffic control devices (stop signs, signals) to give greater priority to bicyclists, as compared with alternative streets. This could include placement of bicycle-sensitive detectors on the righthand portion of the street where bicyclists are expected to ride.
- Street parking has been removed or restricted in areas of critical width to provide improved safety.
- Surface irregularities have been corrected (i.e., utility covers adjusted to grade, potholes filled, etc.).
- Maintenance of the route will be at a higher standard than that of other comparable streets (i.e., more frequent street sweeping).





## H. WATER FACILITIES

### 1. EXISTING SETTING

Water service within the Moreno Valley study area is predominately provided by Eastern Municipal Water District (EMWD). Several smaller water companies also provide service, including Sunnymead Mutual and Edgemont Gardens Water Companies which provide well water and/or water purchased from EMWD to small tracts of land within the northwestern portion of the City limits; Reche Canyon Mutual Water District; San Gorgonio Pass Water District; and Brownland Water Company. Water district and company boundaries are shown on Figure 40.

#### a. WATER DISTRIBUTION AND STORAGE SYSTEMS

Hydraulic control is provided by several water tanks and pumping stations located throughout the study area. With a total capacity to provide up to 80 mgd to Moreno Valley, EMWD'S water tanks currently provide 12.7 million gallons of water storage to residents within the study area; an additional 30 to 40 million gallons of storage capacity is planned through the year 2010.

The City's distribution system consists of numerous major feedlines. Transmission pipes range from 12 to 54 inches. General service pipes range from 6 to 8 inches.

Presently, the system is generally adequate under EMWD's jurisdiction. However, the smaller water purveyors within the study area generally have systems that are undersized, which limits their ability to deliver adequate water supplies. In an attempt to push more water through the undersized lines, both operating and static pressure have been raised. Despite the use of higher water pressure, the undersized systems continue to be deficient in actual water flow. Currently, there is no detailed water master plan for the City of Moreno Valley. However, EMWD does predict that existing infrastructure development trends, combined with the close

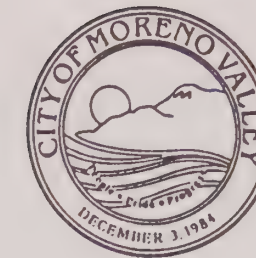
proximity of the State Water Project at Lake Perris, will allow for adequate water delivery infrastructure for a population of approximately 200,000 near the year 2010.

In addition to water service within the City of Moreno Valley, there are other agencies providing water service within the study area. The northernmost portion of the study area, which encompasses a small portion of the Reche Canyon area, is served by Reche Canyon Mutual Water District and San Bernardino Valley Mutual Water Districts. The San Gorgonio Pass Water District serves the area within and adjacent to De Anza Cycle Park area. Finally, as discussed previously within the Environmental Resources Element, the Brownlands Mutual Water Company provides well water for the agricultural lands in the southeastern portion of the study area, between the San Jacinto Wildlife Area and Gilman Springs Road.

#### b. WATER CONSUMPTION FACTORS




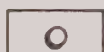



Table V-GG shows the water use consumption factors used by EMWD for planning purposes in determining water consumption by individual projects. Although EMWD uses 200 gallons/person/day as a general average water flow for urban populations, the factors shown in the table are closer approximations. It should be noted that many development projects are assessed for water consumption requirements on a case by case basis. Water lines are generally sized based on peak day demand plus fire flow. EMWD's has estimated that on an average day, 600 gallons per day are used to fight fires. The fire flow requirement has been estimated at 500 gallons per minute at a pressure of 20 pounds per square inch (psi).





# WATER FACILITIES AND AGENCIES

## LEGEND

-  STATE AQUEDUCT
-  12-21" PIPELINES
-  24" PIPELINES
-  STORAGE TANKS
-  PROPOSED STORAGE TANKS
-  PUMPING PLANTS
-  WELLS

Source: Eastern Municipal Water District  
All Agencies Shown

FIGURE 40

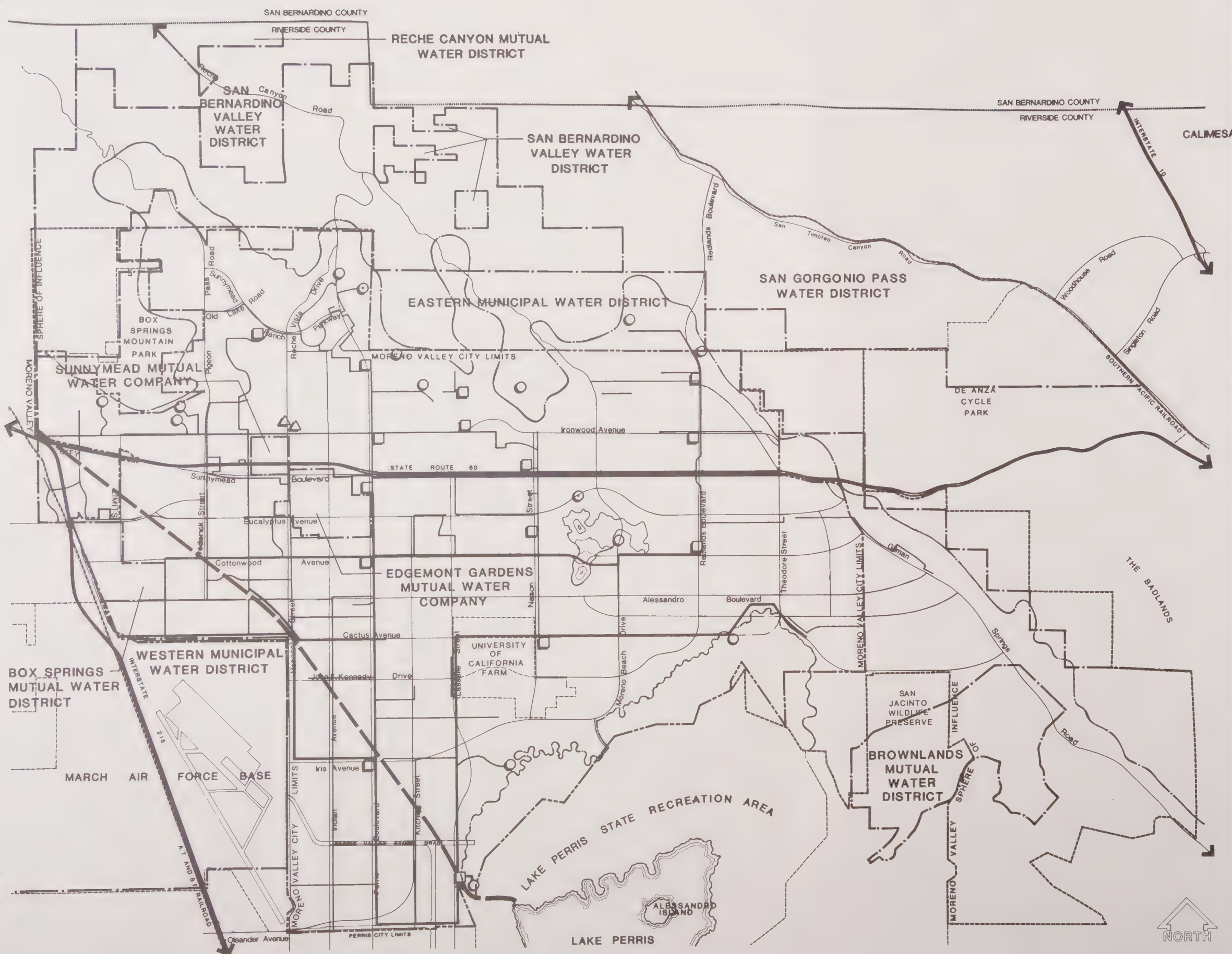
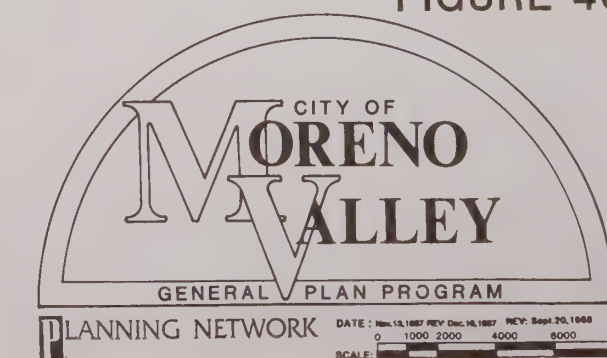






Table V-GG

## DAILY WATER CONSUMPTION COEFFICIENTS BY LAND USE

(in Gallons per Day)

Land Use	Average Day	Peak Day
Residential	200/capita	400/capita
Commercial	3600/acre	7200/acre
Industry	3600/acre	7200/acre
Water Storage Requirement = 1 maximum day plus required fire flow		

### 2. ISSUES AND OPPORTUNITIES

The major issues related to water infrastructure are with the development of an adequate system to serve the study area's future needs. The major water system is largely under the responsibility of EMWD; however, the existing General Plan inherited from the County has given EMWD only a rough idea of what type of future land development within the study area will occur. Therefore it becomes difficult to predict with any accuracy what service levels and water demands will be placed upon existing and future water facilities. In addition, the relatively high cost of extending water infrastructure into new areas often deters land developments of higher density. This is particularly true with much of the northern and northeastern portions of the study area.

The General Plan can aid Eastern Municipal Water District in their master planning of water infrastructure within the study area. Information on land use patterns, development intensity, development timing, and other related matters will provide a more adequate basis from which EMWD can project water consumption rates, levels of service, and facilities requirements into the future.



## I. WASTEWATER SYSTEMS

### 1. EXISTING SETTING

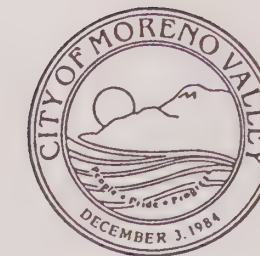
Sewage collection, treatment, and disposal services within the study area have been under the jurisdiction of two agencies: Eastern Municipal Water District (EMWD) and Edgemont Community Service District (ECSD).

EMWD has served the greater portion of the study area since its formation in 1950. The Sunnymead treatment plant has been in service since 1968. Sewer service is currently not available in the unincorporated portions of the study area, and is also unavailable in much of the eastern and northern portions as well, with the exception of the Pigeon Pass Valley area where sewer service has been extended for the Sunnymead Ranch project (see Figure 41).

Average daily effluent flows at EMWD's Sunnymead treatment plant are currently about 4.7 million gallons per day (mgd). According to EMWD, the treatment plant is adequate for the population it presently serves. However future growth will necessitate expansion of, or addition to, the treatment plant facility.



The Sunnymead Treatment Plant was first constructed in August, 1968 with a 1.0 mgd capacity. Currently, a one and one half year planned expansion from 6 to 10.0 mgd is underway. EMWD predicts that the treatment plant will one day treat over 20 mgd.





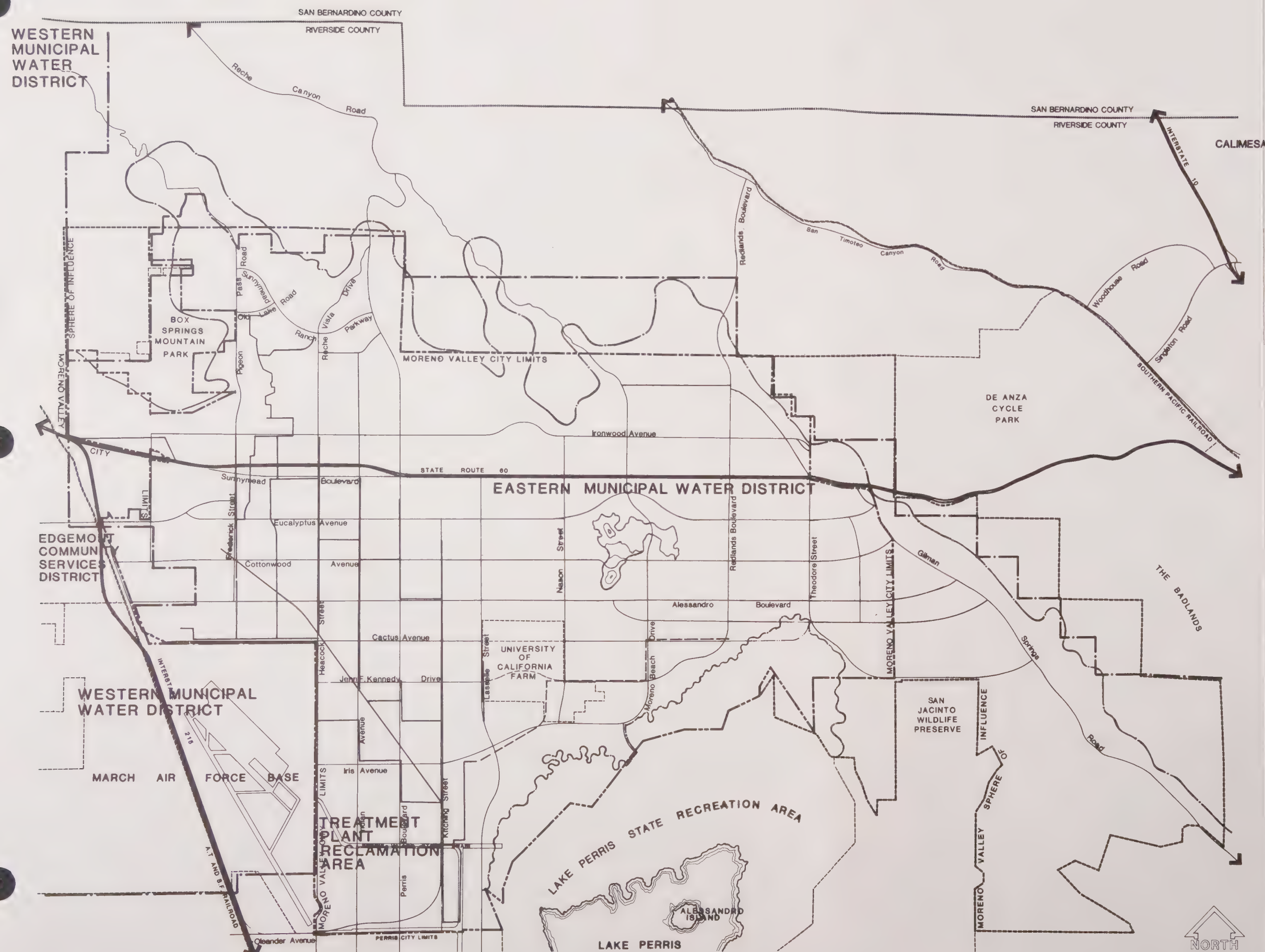
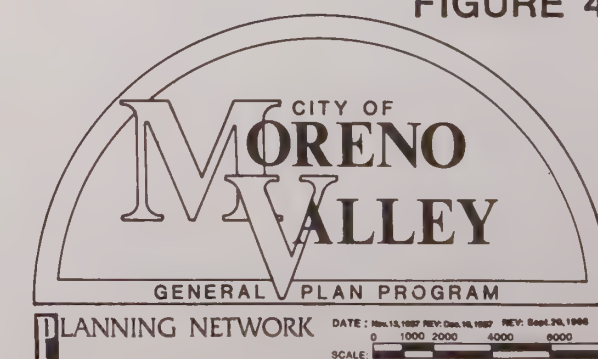
# SEWER FACILITIES

## LEGEND

-  12-21" SEWER MAINS
-  PROPOSED 12-21" SEWER MAINS

Source: Eastern Municipal Water District

FIGURE 41







The basic wastewater treatment process at the Sunnymead plant provides secondary treatment, meaning that the water has been treated to the extent that it may be reused for some agricultural irrigation and basic industrial uses. However, an additional, "tertiary," level of treatment would be required for use of wastewater on areas subject to human contact, such as public parks, golf courses, and other urban landscaped areas. Tertiary treatment is far more costly than secondary treatment, yet considerably less expensive than State Water Project supplies. One additional advantage to reclaimed water is that there is a continuing supply of it, even during drought condition.

Average wastewater flows have been established by EMWD for planning of their future sewage facilities. The average sewage unit generation coefficients used by EMWD are presented in Table V-HH.

The Edgemont Community Services District (ECSD) was incorporated to provide sewer service to the residents and businesses of Edgemont. On July 10, 1987, the ECSD Treatment Plant was taken out of service, and the District was connected to the City of Riverside's Canyon Springs Interceptor Trunk Sewer. Sewage generated within Edgemont is treated by the City of Riverside under contract at their main treatment plant. Sewer lines within the ECSD service area are maintained by the District. ECSD's present contract with the City of Riverside allows the District to purchase additional capacity rights beyond their existing 740,000 gallon per day rights provided that additional sewage capacity is available within the City of Riverside.

The Santa Ana Regional Water Quality Control Board is responsible for issuing discharge permits for expansions of existing treatment plants, as well as for the construction of new plants. In addition, water reclamation permits issued by the Regional Board are required for the use of reclaimed wastewater for irrigation and other purposes.

Table V-HH

## WASTEWATER GENERATION FACTORS

Land Use	Average Flow (gallons per day)
Residential	
Single Family	100/capita
Multi-Family	100/capita or 300/unit
Mobile/Retirement	80/capita or 200/unit
Commercial (may vary on case basis)	
Stores, Offices, Small Business	15-20/employee
Hotel/Motel	15-150/employee
Industrial (varies on case basis)	N/A
Schools	
Elementary	15/capita
High School	25/capita
Recreation/Open Space	20-25/capita
Medical Center	100/capita
Hospital	200-800/bed
Nursing Home	100/bed

Source: Eastern Municipal Water District

## 2. ISSUES AND OPPORTUNITIES

Making use of reclaimed water is generally desirable from an economic as well as a water conservation standpoint. Currently, all 4.7 mgd of treated effluent is sold to local agricultural operations. In addition, agricultural demand for another 1.5 million gallons of treated water currently exists. According to EMWD, negotiations with Moreno Valley land developers for the use of reclaimed water on landscaping, manmade lakes, and similar purposes are also being sought.

Since future discharge requirements will likely necessitate tertiary treatment, as EMWD expands its treatment plant, additional use areas for reclaimed water can be considered. EMWD has the opportunity to provide treated effluent and reclaimed water for future landscaping along State Route 60, proposed landscaping and golf course areas on the nearby Moreno Valley Ranch site, and other similar uses within the general vicinity of the treatment plant. Without sufficient demand for reclaimed water, EMWD will have to provide tertiary treatment, and discharge reclaimed wastewater to the San Jacinto River. This would not only result in a lost opportunity for water conservation/reclamation, but would also result in higher costs to local residents.

EMWD's long-range plans for sewer facilities are presently projected to the year 2000. In compliance with Federal and State requirements, an area-wide sewer facility plan is currently being developed to qualify EMWD for Federal and State assistance, which would finance the required additional regional sewer facilities anticipated through the year 2000. The general plan can provide the opportunity to identify possible land uses in the vicinity of the treatment plant such as industrial or agricultural which might make beneficial use of treated effluent. This would provide EMWD with easily accessible areas for the disposal of treated wastewater.

Extending sewer facilities is a key component of land development. As land is developed with urban and suburban uses, sewer facilities will need to be extended from existing locations in compliance with EMWD standards and procedures. Presently the cost of sewer line extensions to serve new developments is borne entirely by the developer.

Although rapid development has been occurring in portions of the study area north of State Route 60, the central portion of that area has been developed with septic tanks. Extending sewer facilities into the northeast portion of the City, including lift stations, is probably not feasible under present conditions. In addition, major sewage trunklines are generally absent in the portion of the City east of Kitching Street.

Although sewer lines will ultimately be extended through the Moreno Valley Ranch project, given predominant parcel sizes (generally 10 and 20 acres) the cost of extending mass major sewer trunklines east of their present locations may be prohibitive except in small increments. An exception would be the Moreno International Trade Center or Pettit Hill Specific Plan area which, because of their large size, might be able to fund significant extensions of the present sewer system. In such a case, "leap-frog" development patterns might become an issue.

Another potential sewer facility issue relates to the future redevelopment of the Edgemont area. As previously stated, the City of Riverside provides sewage treatment services for the area within the Edgemont Community Services District. The District's present contract with the City of Riverside gives the District the right to generate 740,000 gallons of sewage per day for treatment. However, according to ECSD's engineer, ultimate planned development within the ECSD service area will generate an average of 1.18 million gallons of sewage per day at build-out. Thus, buildout of the Edgemont area as planned will require that ECSD obtain the right for an additional 440,000 gallons per day of sewage treatment capacity.



## J. SOLID WASTE SYSTEMS

### 1. EXISTING SETTING

Solid waste collection services within the study area are provided by two companies: Waste Management and Cyr's Rubbish Disposal. Waste Management currently owns and operates three subsidiary companies, two of which, Inland Disposal Inc. and Sunnyside Disposal Company, operate within the unincorporated portions of the study area. The third subsidiary, Moreno Valley Disposal Company, operates under contract to the City within the City boundary. Cyr's Rubbish Disposal, on the other hand, operates exclusively in the unincorporated area.

Solid wastes from the study area are deposited primarily at two sanitary landfills: Badlands and Mead Valley. The Badlands Landfill is located approximately 1/2 mile north of State Route 60 on Ironwood Avenue. The Mead Valley Landfill is located approximately eight miles southwest of Moreno Valley, outside of the study area. There are two secondary landfill sites that may be used for solid waste disposal. They are Highgrove Landfill, located six miles northwest of Moreno Valley on Pigeon Pass Road, and Lamb Canyon Landfill, located approximately nine miles east of Moreno Valley on Highway 79.

The Riverside County Solid Waste Management Plan was prepared by the Riverside County Road Department in January 1984. The purpose of the plan is to "provide a comprehensive solid waste management system for Riverside County which provides for the safe, efficient, economic, and sanitary storage, collection, transportation, recovery, and disposal of solid wastes, while protecting the general public health and the environment". The report, a revision to the previous 1980 plan, presents a comprehensive study of the various aspects of solid waste management throughout Riverside County. Major elements of the Solid Waste Management Plan include analysis of waste generation, waste storage, waste collection, waste

transfer and transportation, resource recovery, special and hard-to-handle wastes, hazardous wastes, litter control, waste disposal, administration and management, and funding.

The Solid Waste Management Plan identifies four major categories of generated solid wastes, each with a distinct composition and usually generated by a specific type of land use. These categories include municipal, industrial, agricultural, and liquid wastes.

Municipal wastes are those commonly generated by residential and commercial land uses, and generally are comprised of typical household garbage and yard wastes. Industrial wastes are similar to municipal wastes with respect to large quantities of waste paper. In addition, industrial wastes include a significant amount of synthetic materials, including hazardous wastes, from industrial processes. Agricultural wastes are primarily composed of plant and animal wastes generated through crop and livestock production. Plant wastes include crop residues and spoiled produce; animal wastes include manure and bedding materials. Certain liquids are legally defined as solid wastes, and can be disposed of at sanitary landfills. This primarily includes septic tank and chemical toilet pumpings, as well as a variety of nontoxic liquids.

According to the Solid Waste Management Plan, the Moreno Valley study area generated approximately 29,900 tons of solid waste in 1980, from a population of 32,700. By the year 2000, the study area will be expected to generate approximately 110,200 tons of solid waste per year, from an estimated population of 121,100. With continued urban development and expanding city boundaries, the major source of solid waste within the study area will be municipal wastes generated within the city limits. The composition of wastes will remain similar to the existing composition; however, some industrial wastes may be generated as industrial development occurs within the city.

## 2. ISSUES AND OPPORTUNITIES

The County of Riverside has reported that it has sufficient landfill capacity to serve the study area for the foreseeable future. The Solid Waste Management Plan estimates the current and projected waste loads and closing dates for each of the landfills. The Badlands Landfill currently accepts 73,600 tons/year with a projected year 2000 rate of 110,200 tons/year and an estimated 2018 closure date.

The Mead Valley Landfill currently accepts 81,300 tons/year with a projected year 2000 rate of 127,900 tons/year and an estimated 2000 closure date, at which time a new site in that area will be opened. The Highgrove Landfill currently accepts 230,000 tons/year with an estimated 1992 closing date. Unless a replacement site is designated by the County, closure of the Highgrove facility will leave the Badlands Landfill as the alternate site for waste disposal. This would result in an additional 200,000 tons/year deposited into the Badlands Landfill which could close the facility at a much earlier date. The Lamb Canyon Landfill currently accepts 73,500 tons/year with a projected year 2000 rate of 103,300 tons/year and an estimated 2018 closure date.

Although the County states that it has sufficient landfill capacities through the year 2000, difficulties associated with the siting of new landfills could significantly reduce the life expectancies of the other regional facilities. In addition, the growth rates for Moreno Valley which were used in the County's forecast appear low, and could, therefore, have a significant impact on solid waste generation and facility closing dates.

In regard to the Moreno Valley study area, the Badlands region may provide for a possible future landfill location to assist in capacity lost from other closing landfills. Although there has been no formal proposal for such a facility, the possibility may exist.

Waste resource recovery programs could be implemented in order to reduce the current and future amounts of solid waste entering the landfills. Recovery and recycling of materials such as paper,

metals, glass, plastics, and oil can best be accomplished by separating these materials at their source of generation. The County's Solid Waste Management Plan suggests that such programs could be highly beneficial and are generally justified by the following outcomes:

- Reduction in solid waste management costs.
- Conservation of valuable landfill space.
- Reduction of some adverse environmental effects.
- Creation of local industry and employment.

According to the County Waste Management Department, the cost of providing solid waste disposal service may significantly increase due to escalating environmental protection costs required by State and Federal regulatory agencies. However, the County anticipates that the landfill cost will remain a minor portion of the total cost of refuse collection for the average homeowner.



## K. PUBLIC FACILITIES

### 1. EXISTING SETTING

The City of Moreno Valley recently acquired a permanent civic center site that will ultimately house its administrative offices. The location of the site, at the northwest corner of the intersection of Alessandro Boulevard and Nason Street, as shown on the Land Use map, Figure A, incorporates approximately 60 acres, and was selected over other alternative sites because of its prominent central location. Beyond this recently acquired civic center site, there are currently no other publicly-owned properties within the study area that have not already been identified under previous existing setting discussions. In addition, the County of Riverside does not own or operate any additional facilities or properties within the study area that have not been previously identified and discussed herein.

### 2. ISSUES AND OPPORTUNITIES

In order to further enhance the public's accessibility to city services, other potential civic sites are also being pursued to serve as satellite sites housing specific city administrative functions that can better serve city residents at such decentralized locations (i.e., planning, building, engineering, public information services).

Potential locations include the Riverside International Raceway site at the west end of the study area, the Moreno Valley Ranch project in the southern portion of the City, and two other high visibility sites in close proximity to the south of State Route 60. One site is located on the west side of Indian Avenue between Sunnymead Boulevard and Eucalyptus Avenue and the other northwest of the intersection of Moreno Beach Drive and Eucalyptus Avenue.



As City services expand, a vehicle maintenance and equipment service center may be necessary. Such a facility may house City vehicles and equipment, store materials, and act as a service facility for the maintenance of the vehicles and equipment. Offices for City service oriented departments such as Public Works and Parks and Recreation could effectively utilize such a facility.

## **L. COMMUNITY DEVELOPMENT OBJECTIVES AND POLICIES**

### **Objective 31.0**

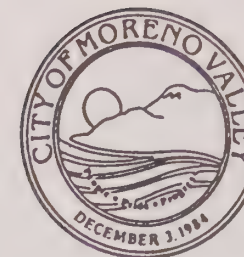
Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the eastern and northeastern portions of the study area (see Figure 42).

#### **Policy Statements:**

- 31.1 The Current Urban Development Area includes those areas to which near-term development may be directed consistent with the policies of the Moreno Valley General Plan.
- a. Commercial, industrial, and residential uses will be those permitted by applicable land use designations as shown on the Moreno Valley General Plan Land Use map.
  - b. Density bonuses will be available for those developments which qualify under the provisions of Policies 32.14 and 32.15.
  - c. Appropriate edge treatments shall be provided at the boundary of the Rural Development Area to provide adequate buffers for adjacent rural uses.







# COMMUNITY STRUCTURE

## LEGEND

### DEVELOPMENT AREAS



CURRENT



RURAL



FUTURE URBAN



PUBLIC OWNERSHIP

OTHER



EMPLOYMENT CENTERS



MAJOR ACTIVITY



HISTORIC DISTRICT



RESIDENTIAL VILLAGE

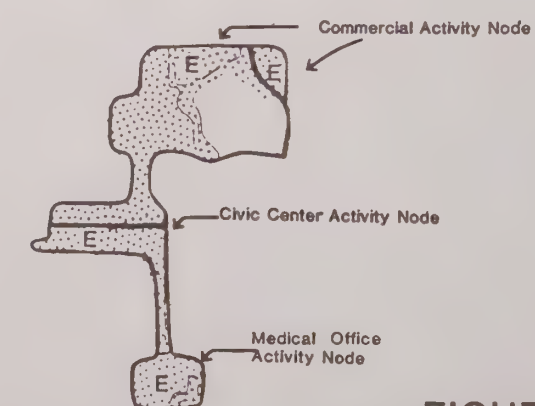
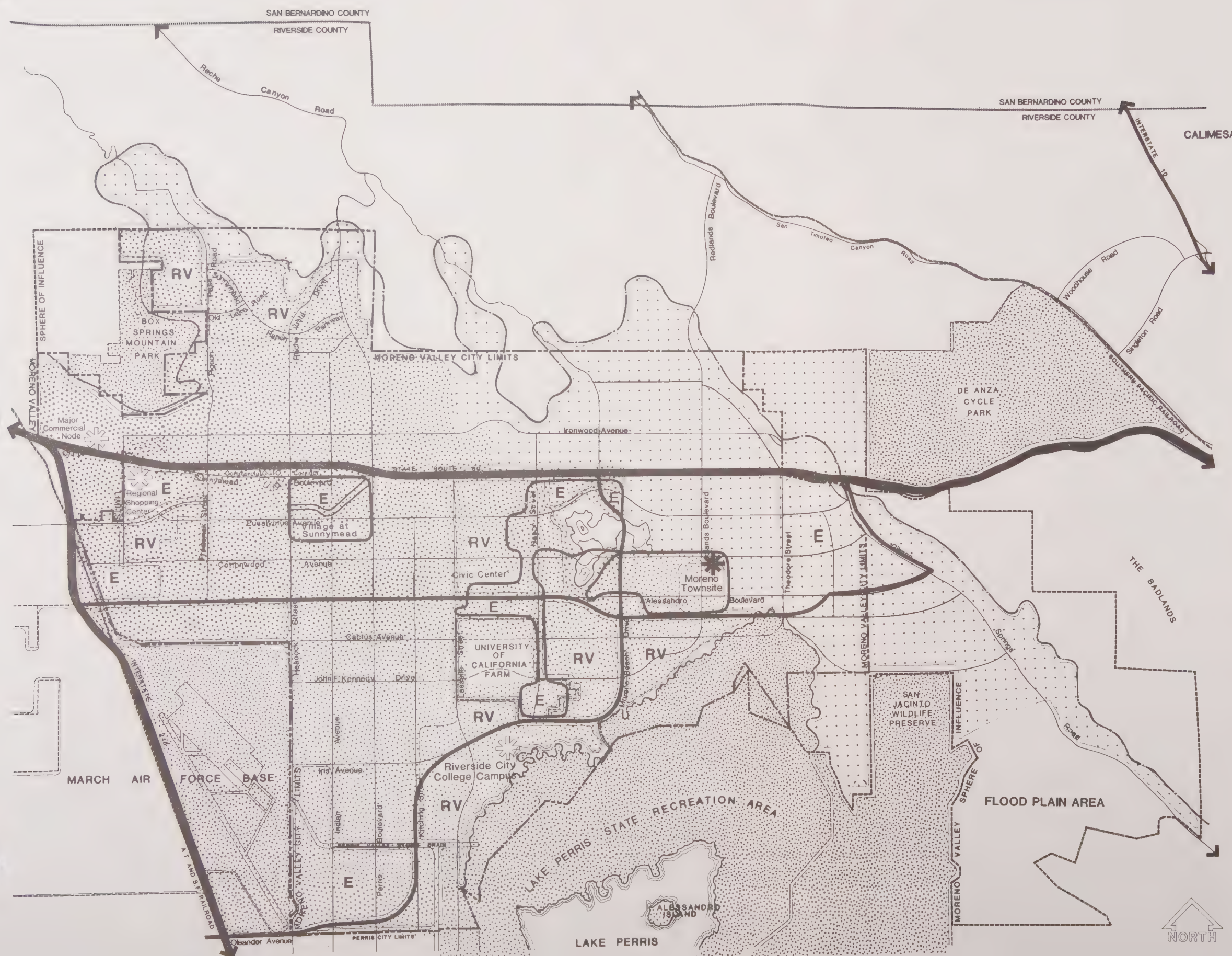
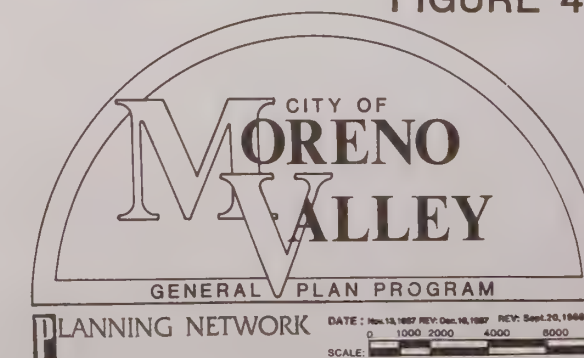


FIGURE 42







31.2

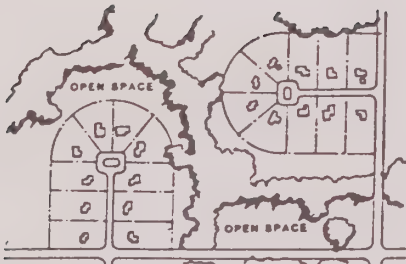
The Future Urban Development Area comprises lands that will ultimately be developed at urban intensities, but which should be held in reserve for at least five years after the effective application of this structure category. (No future urban category is currently designated)

- a. The Future Urban Development Area will be permitted to develop at low intensity uses (maximum one dwelling unit per ten acres) which do not require urban levels of service until infilling has occurred in adjacent areas and services can be provided at levels necessary for urban densities.
- b. The boundaries of the Future Urban Development Area will be evaluated approximately every five years.

31.3

The Rural Development Area comprises lands within which the pursuit of rural lifestyles is to be emphasized. Included in this category are lands outside of the Current and Future Urban Development areas.

- a. Where authorized, densities of up to two dwelling units per acre may be permitted as identified by the applicable land use designations shown on the Moreno Valley General Plan Land Use map.
- b. The City shall adhere to the policy statements included within the other elements of this plan as they relate to the control of hillside residential developments, preservation of existing landforms, erosion control, the protection of biologically significant areas, and the preservation of agricultural space.



- c. The density/intensity of land uses in the northeastern and eastern areas of the General Plan study area shall be primarily Rural Residential (RR - up to one dwelling unit per 2.5 acres) and Residential 1 (R1 - up to one dwelling unit per acre).
- d. Large areas of permanent and transitional open spaces shall be encouraged throughout the eastern and northeastern portions of the study area with emphasis on preservation of prominent slopes and ridgelines in hillside areas.

#### **Objective 32.0**

Provide a wide range of residential opportunities and dwelling unit types at an average annual rate of 1,880 dwellings over the next five (5) years to meet the demands of present and future residents of all socioeconomic groups, and promote the development of an adequate number of new dwelling units which are affordable to very low, low, moderate, and upper income families.

#### **Policy Statements:**

- 32.1 Residential use types permitted within the residential land use categories shown on the Moreno Valley General Plan Land Use Map include the following:
  - a. Large Lot Residential: These areas typically consist of one-family detached dwelling units on parcels of one-half acre to one acre or greater. Residential developments of this type shall be generally designed as either large suburban parcels within subdivisions or as rural residential areas oriented toward the keeping of horses and other large animals. Within areas devoted to the keeping of animals, one or more outbuildings are typically found.



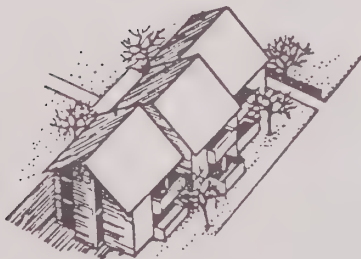
SINGLE FAMILY DETACHED



SMALL LOT SINGLE FAMILY DETACHED



SINGLE FAMILY ATTACHED



MULTIPLE FAMILY ATTACHED

- b. Single Family Detached: These areas typically consist of residential subdivisions for one family, detached dwellings on lots ranging from 7,200 square feet to 20,000 square feet.
- c. Small Lot Single Family Detached: These areas typically consist of residential subdivisions for one family detached dwellings on lots smaller than 7,200 square feet. These developments are typically located in a specific plan or other "planned unit" development, and provide such amenities as community open space or recreation.
- d. Single Family Attached: These areas typically consist of attached, for-sale dwelling units, and are generally designed either as townhouses or statutory condominiums. Amenities, such as common open space and recreation facilities, are required.
- e. Multiple Family Attached: These are as typically consist of attached, for-rent dwelling units, and shall be generally designed either as townhouses or stacked flats. Open space and recreational amenities are required.
- f. Mobile Homes: Areas developed for mobile homes shall typically consist of subdivisions wherein individual mobile-home owners also own their lot in fee, and mobilehome parks where individual residents rent or lease the space upon which the mobilehome is placed. Typically, both mobilehome subdivisions and mobilehome parks provide amenities such as community open space and/or recreational facilities.

32.2 In determining allowable density for residential parcels an "adjusted net acreage" shall be used. Adjusted net acres shall mean the land area which would remain after dedication of ultimate rights-of-ways for 1) exterior boundary streets, 2) flood control rights-of-way, and 3) public parks developed to meet minimum standards. Major utility easements and rights-of-ways may not be counted as adjusted net acreage. Areas devoted to park land or active recreational uses may be counted as adjusted net acreage only if such public facilities are proposed over and above the minimum park land requirements.

32.3 The primary purpose of areas designated *Hillside Residential* on the Moreno Valley General Plan Land Use map is to balance the preservation of hillside areas with the development of view-oriented residential uses.

- a. Within the Hillside Residential category, appropriate residential uses include large lot residential, and single family residential on lots larger than 20,000 square feet. Lots smaller than 20,000 square feet may only be permitted as clustered units within those portions of designated hillside areas which have slopes of less than 10%.
- b. Within the Hillside Residential area encompassed by Pettit Hill, the following Commercial and Public/Quasi-Public uses may be appropriate subject to General Plan policies and Moreno Valley ordinances in addition to those uses identified in Subsection "a" of Policy 32.3.

Commercial Uses:

Eating and Drinking Establishments

Public/Quasi Public Uses:

Cultural Facilities



- c. The maximum residential density within Hillside Residential areas shall be determined by the steepness of slopes within the individual project according to the following Table V-II:

TABLE V-II

### MAXIMUM HILLSIDE RESIDENTIAL DENSITY

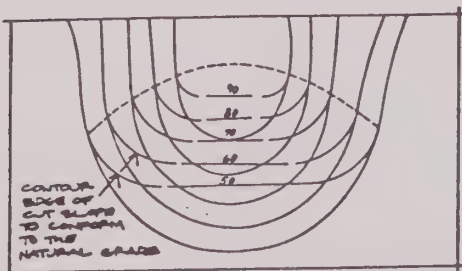
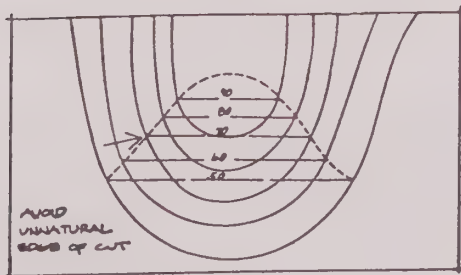
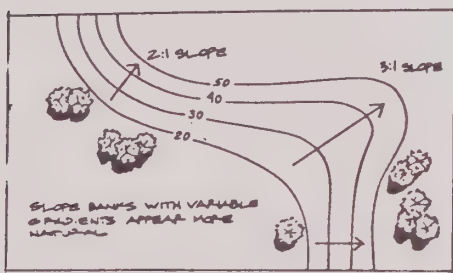
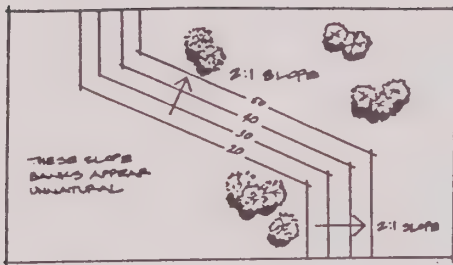
Slope Percentage	Allowable Density
Greater than 25%	0.10 du/ac
25% to 15%	0.25 du/ac
15% to 10%	0.50 du/ac
Less than 10%	1.00 du/ac

#### 32.4

Future development within Hillside Residential and Rural Residential areas shall occur in such a manner as to preserve natural hillside characteristics.

- a. The development of hillside areas shall balance the retention of open space with the proposed areas of new construction, based upon the average slope of the land surface as follows:

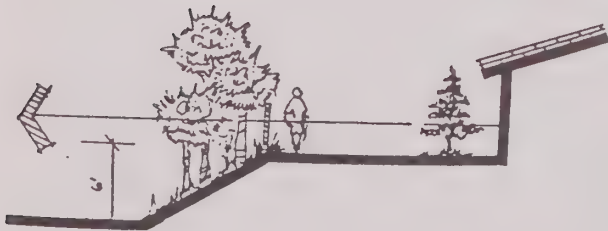
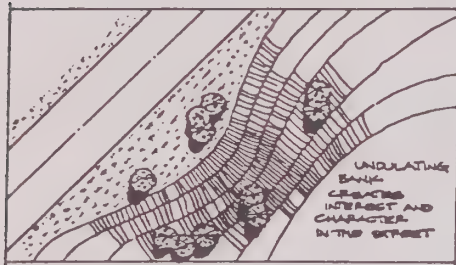
- (1) Slopes averaging from 10% to 15% shall require a minimum of 35% to remain as natural open space.
- (2) Slopes averaging from 15.1% to 25% shall require a minimum of 50% to remain as natural open space.
- (3) Where average slopes exceed 25%, a minimum of 60% shall remain as natural open space.







- b. Hillside area developments should relate to the natural surroundings and should minimize grading by following the natural contours as much as possible.
- c. Graded slopes should be rounded and contoured so as to blend with the adjacent natural terrain.
- d. All excess excavated material shall be removed or otherwise placed so as to become an integral part of the site development.
- e. Driveways within hillside developments shall be designed in such a way as to avoid excessive cut and fill slopes.
- f. On lots where the average slope exceeds 15 percent, the construction of custom homes with multiple foundation levels shall be encouraged.
- g. On lots where the average slope exceeds 25%, the construction of custom homes with multiple foundation levels shall be mandatory, while post and beam construction shall be encouraged.
- h. Dwelling units and structures within hillside areas shall be sited in such a manner as to utilize ridgelines and landscape plant materials as a backdrop for the structures and the structures themselves to provide maximum concealment of cut slopes.
- i. Existing vegetation within hillside development areas shall be retained in any part of the total development which is not designated for grading or construction unless removed as part of an approved fuel modification program.



- j. Existing vegetation which cannot be preserved in place, but is suitable for transplanting, shall be relocated elsewhere on the site.
- k. "Landforming" shall be applied to all slopes adjacent to public streets, gateways, and public view areas, as well as to all slopes greater than 100 feet in length or ten feet in vertical height.
  - (1) Landforming shall be accomplished by the use of variable slope ratios, undulating of tops and toes, screening of terraces and downdrains, varying of surface features, and by landscaping.
  - (2) Rear and side yard slopes between adjacent lots within the same project need not be landformed unless they are greater than 100 feet in length or ten feet in vertical height.
- l. Dwelling units and structures shall be sited in a manner which:
  - (1) protects views from existing development;
  - (2) retains opportunities for views from dwellings;
  - (3) preserves or enhances vistas, particularly those seen from public places; and
  - (4) preserves visually significant rock outcrops, natural hydrology, native plant materials, and areas of visual interest.

32.5

The primary purpose of areas designated *Rural Residential* on the Moreno Valley General Plan Land Use map is to provide for and protect rural lifestyles, as well as to protect natural resources and hillsides in the rural portions of the City.

- a. Within the Rural Residential category, large lot residential is appropriate subject to applicable General Plan policy and Moreno Valley ordinance provisions.
- b. Within the Rural Residential category, the keeping of large animals shall be permitted.
- c. The maximum residential density within Rural Residential areas shall be determined by the steepness of slopes within the individual project area according to the following Table V-JJ:

TABLE V-JJ

**MAXIMUM RURAL  
RESIDENTIAL DENSITY**

Slope Percentage	Allowable Density
Greater than 25%	1 du/20 acres
25% to 15%	1 du/10 acres
15% to 10%	1 du/5 acres
Less than 10%	1 du/2.5 acres

32.6 Residentially designated land uses within an area defined by a line 600 feet outside and 300 feet within the Hillside Delineation Line as shown on the General Plan Land Use Map shall be considered within the "Hillside Transition Area".

- a. Applicants requesting development proposals within this area shall be required to complete a slope analysis indicating the relationship between the location of the development and the existing natural topography.

- b. Portions of the development proposal which exceed an average slope of 10% shall be required to adhere to all hillside development objectives and policies within the Hillside Residential category.
- c. Portions of the development proposal wherein slopes are less than 10% on the average shall be required to adhere to all objectives and policies within the underlying or adjacent land use category as shown on the General Plan Land Use Map.

32.7 The primary purpose of areas designated *Residential 1* on the Moreno Valley General Plan Land Use map is to provide for and protect rural lifestyles.

- a. Within the Residential 1 category, large lot residential is appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- b. The maximum allowable density for projects within the Residential 1 areas shall be 1.0 dwelling unit per acre. (40,000 sq. ft. minimum lots)
- c. Within the Residential 1 areas, the keeping of large animals shall be permitted.

32.8 The primary purpose of areas designated *Residential 2* on the Moreno Valley General Plan Land Use map is to provide for suburban lifestyles on residential lots larger than are commonly available in suburban subdivisions, and to allow non-equestrian residential developments in a rural atmosphere.

- a. Within the Residential 2 category, large lot residential development is appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.

- b. The maximum allowable density for projects within Residential 2 areas shall be 2.0 dwelling units per acre. (20,000 sq. ft. minimum lot sizes)

32.9 The primary purpose of areas designated *Residential 3* on the Moreno Valley General Plan land use map is to provide a transition between rural and urban density development areas, and to provide for a suburban lifestyle on residential lots larger than those commonly found in suburban subdivisions.

- a. Within the Residential 3 category, large lot residential and single family detached residential may be appropriate, subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- b. The maximum allowable density for projects within the Residential 3 areas shall be 3.0 dwelling units per acre.

32.10 The primary purpose of areas designated *Residential 5* on the Moreno Valley General Plan Land Use map is to provide for single family detached production housing on common sized suburban lots.

- a. Within the Residential 5 category, single family detached residential, small lot single family detached residential, and mobile homes may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- b. The threshold density for projects within Residential 5 areas is 4.0 dwelling units per acre, with a maximum allowable density of 5.0 dwelling units per acre. (See Policy 32.14).



32.11 The primary purpose of areas designated *Residential 10* on the Moreno Valley General Plan Land Use map is to provide for a variety of residential products and to encourage innovation in housing types. Developments within Residential 10 areas are expected to provide amenities not generally found in suburban subdivisions, such as common open space and recreational areas.

- a. The threshold density for projects within the Residential 10 designation shall be 8.0 dwelling units per acre, with a maximum allowable density of 10.0 dwelling units per acre. (See Policy 32.14).
- b. Within the Residential 10 category, small lot single family detached residential, single family attached residential, multiple family attached residential, and mobile homes may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.

32.12 The primary purpose of areas designated *Residential 15* on the Moreno Valley General Plan Land Use map is to broaden the range of available housing types, and to provide housing for those not desiring dwellings on individual parcels, as well as amenities not generally found in suburban subdivisions, such as common open space and recreational areas.

- a. Within the Residential 15 category, single family attached residential and multiple family attached residential may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- b. The threshold density for projects within the Residential 15 category is 12.0 dwelling units per acre, with a maximum density of 15.0 dwelling units per acre. (See Policy 32.14).

32.13 The primary purpose of areas designated *Residential 20* on the Moreno Valley General Plan Land Use map is to broaden the range of available housing types, to provide housing in a more urban setting than is found in other areas of the City, and to provide opportunities for low and moderate income housing. Developments within Residential 20 areas shall also provide amenities not generally found in suburban subdivisions, such as common open spaces and recreational areas.

- a. Within the Residential 20 category, multiple family attached residential may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- b. The threshold density for projects within the Residential 20 category shall be 16.0 dwelling units per acre while the maximum density permitted shall be 20 dwelling units per acre. (See Policy 32.14).

32.14 Threshold densities as stated for Residential 5, Residential 10, Residential 15, and Residential 20 designations may be exceeded up to the maximum allowable density only if it is determined that:

- a. Area infrastructure can support increases in density,
- b. The proposed density increase will be compatible with surrounding land uses; and
- c. The project provides either:
  - (1) Amenities not commonly found in projects of similar density,
  - (2) Housing affordable to low and moderate income households, or

- (3) Housing meeting the requirements of special needs groups as identified in adopted housing policies.

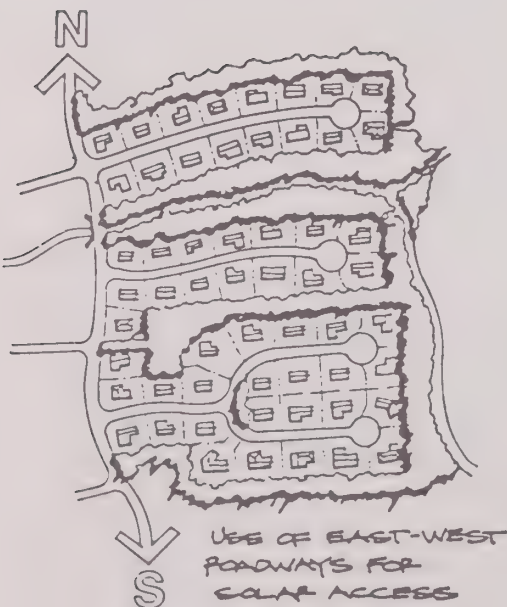
32.15 Densities in excess of the maximum allowable density for projects within the Residential 10, 15 and 20 designations (10, 15 and 20 DU's per acre) may be permitted for senior citizens' apartment and congregate care projects.

32.16 The following Public/Quasi-Public uses may be permitted in all residential land use categories as shown on the Moreno Valley General Plan Land Use Map, with the exception of Religious Assembly which should be located along the periphery of a residential neighborhood, subject to applicable General Plan policies and Moreno Valley ordinance provisions.

a. Public Assembly: Activities in this category typically include, but are not limited to, those performed by or at the following institutions or installations:

- (1) Public and private schools and learning institutions;
- (2) Parks, botanical gardens, and open space areas of a passive character;
- (3) Public and semi-public playgrounds and playing fields, and open space areas of an active use character.
- (4) Public and semi-public meeting halls and facilities.

b. Religious Assembly: Activities in this category shall include those performed or sponsored by any religious institution or affiliate group.



- 32.17 Limited commercial land use types shall be permitted as Home Occupations within all residential land use categories as shown on the Moreno Valley General Plan Land Use Map subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- a. Home Occupations typically include such commercial enterprises that are operated and conducted within residential dwellings by the owner or occupant and are of a character that is compatible with the surrounding residential neighborhood and atmosphere.
- 32.18 "Planned Unit Developments" shall be encouraged for residential construction in order to provide housing that is varied by type, design, form of ownership, and size.
- 32.19 The City's land use policies shall discourage costly "leap-frog" development patterns by encouraging in-fill development wherever feasible, thereby reducing overall housing costs.
- 32.20 The provision of a diversity of housing types, including conventional, factory built, mobile home, and multiple family dwelling units, shall be of paramount concern in the implementation of the City's land use and zoning policies.
- 32.21 The City shall encourage the use of new, innovative building materials that meet or exceed minimum Building Code requirements, where it can be shown that such innovations will reduce the cost of residential construction.
- 32.22 The City shall encourage the use of innovative site design practices, where such innovations can be shown to reduce the cost of site preparation, and ultimately the cost of shelter to the consumer.

- 32.23 The City shall encourage energy and water conservation measures in conjunction with on-site construction, to ensure that on-going costs to the consumer will be reduced.
- 32.24 The City shall ensure that cost increases do not occur as the result of unnecessary or repetitive environmental evaluations.
- 32.25 The City shall discourage the conversion of multi-family rental units to condominiums, thereby preserving the inventory of affordable rental units.
- 32.26 The City housing programs and policies shall discourage the incidence of housing discrimination.
- 32.27 The City's housing policies shall encourage the development of housing that is specifically designed to meet the needs of the elderly and physically handicapped.
- 32.28 The City shall encourage efforts to inform landlords and tenants alike, of their respective rights, and promote efforts to assist in the resolution of landlord/tenant disputes.
- 32.29 The City shall discourage the conversion of mobile home parks to subdivisions.
- 32.30 The City shall support efforts at the regional, state, and federal levels to stimulate housing production through actions aimed at increasing the supply of money available for housing construction.
- 32.31 To enhance their sense of belonging, housing developments for low and moderate income households should be designed so that they do not stand out in the neighborhood.
- a. Features which might be considered "affected" or "faddish" should be avoided.



- b. Forms, materials, and proportions that allow the development to blend in with its surroundings should be utilized.

#### **Objective 33.0**

Retain at no less than the present levels, approximately 400, the number of subsidized housing units of all types, and expand affordable housing opportunities for low and moderate income households by capturing for the benefit of eligible Moreno Valley residents, 400 new federal housing subsidies over the next five years.

#### **Policy Statements:**

- 33.1 The City shall pursue the acquisition of Community Development Block Grants, Section 8 Housing Assistance, and tax increment funds through the City Redevelopment Agency, and such other successor programs as may be created during the term of this housing element.
- 33.2 Because of the increasing scarceness of public funding, the City shall emphasize incentives to the private sector, rather than the direct funding of projects itself, and thereby reduce the cost to buyer or renter.

#### **Objective 34.0**

Rehabilitate deteriorated dwellings at an average annual rate of 195 dwellings over the next five (5) years.

#### **Policy Statements:**

- 34.1 The City shall support and assist the Riverside County Housing Authority in identifying low and moderate income homeowners whose homes are in need of repair, and qualify for low interest rehabilitation loans.



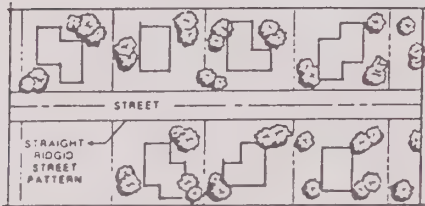
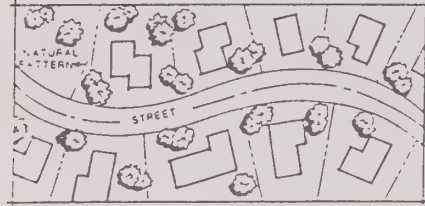
- 34.2 The City shall work with local financing authorities toward the provision of below market rate loans for the rehabilitation of both owner occupied and rental units.
- 34.3 The City shall, on a regular basis, disseminate information to the general public regarding the availability of public and private assistance programs for residential rehabilitation.
- 34.4 The City shall continue to pursue housing programs offered by the state and federal governments.
- 34.5 The City shall, through a local information and assistance program, encourage the continued maintenance of currently sound housing units.
- 34.6 The City's allocation of rehabilitation assistance shall emphasize, as the highest priority, the needs of the aged, the handicapped, the overcrowded, and single parent households.

#### Objective 35.0

Promote a sense of community and pride within residential areas through increased neighborhood interaction and enhanced project design.

#### Policy Statements:

- 35.1 The City shall encourage the use of natural topographic variations, landscape buffers, variations in building types, and other appropriate techniques of visual separation to divide residential developments into distinct neighborhood areas.
- 35.2 Incorporate neighborhood concepts in the design of the circulation system, and discourage non-local traffic on local streets without traffic modification devices, through the design of a graduated street system as described below:



- a. Locate residential units on short local streets (cul-de-sacs or loops, wherever possible).
- b. Feed short local streets into local collectors, and minimize the number of dwelling units onto which frontage is permitted.
- c. Feed local streets into master planned roadways.

- 35.3 Residential units within single family neighborhoods shall be provided with recognizable variations in their front and side yard setbacks.
- 35.4 Residential developments should maximize a feeling of openness by curving streets and orienting road axes to open space areas and areas of visual interest.
- 35.5 Within individual residential projects, a variety of floor plans and elevations should be offered as shown in Table V-KK.

TABLE V-KK

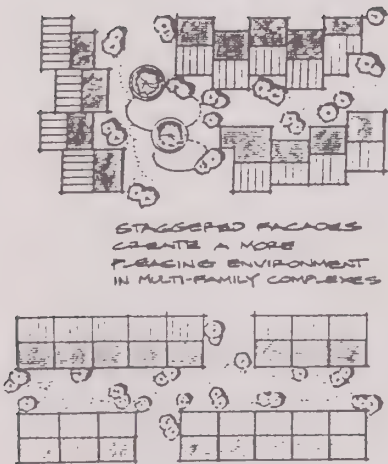
## RESIDENTIAL FLOOR PLAN & EVALUATION REQUIREMENTS

Number of Single Family Dwellings	Minimum Number of Footprints*	Minimum Number of Elevations/Footprint
< 10	3	2
11 - 20	3	3
21 - 40	4	3
41 - 60	5	4
61 - 80	6	4
81 - 100	7	4
>100	1 additional for each 40 dwellings over 100	

\*Includes reverse footprints.



- 35.6 Appropriate and simple roof forms should be used, including shed, gable, and hip roofs, alone or in combination to achieve a variety of roof lines along the streetscape.
- a. Except in large industrial parks or high-rise office buildings, unarticulated flat roofs should be avoided.
- 35.7 To reduce architectural massing, the short and low side of a corner residential unit should be oriented toward the street.
- 35.8 To create architectural congruity, where a two-story building is to be built adjacent to a one-story structure, it should contain a single story element.
- 35.9 Large-scale small lot single family and multiple family residential projects should be designed in such a manner as to group dwellings around individual open space and/or recreational features.
- 35.10 In multi-story residential projects, ground floor units should be designed for the needs of families with small children, the elderly, and physically disabled persons.
- a. Ground floor units should be provided with enclosed yards or patios.
- 35.11 Multiple family residential projects should be designed and landscaped to provide a pleasing view from the windows of individual units.
- a. A diversity of views should be provided from the windows of multiple family units, including distant open views, closer views of greenery, and some human activity.
- b. If some windows must look out onto a blank wall, fast-growing vines should be planted on the wall to enhance its appearance.



- c. Where there is limited separation of windows from nearby public or common spaces, fencing, planting, or grade differentials should be used to ensure privacy.

35.12 In higher density projects with tuck-under parking and/or opposing garages or carports, individual units shall be turned and oriented to avoid the monotony of parking corridors. Alternately, parking areas should be staggered and appropriately landscaped.

35.13 The function and quality of multi-family residential developments shall be maintained by the orientation of buildings and living spaces at right angles to each other for privacy, and by adequate provision of private open space areas such as patios and balconies for each unit.

35.14 Each sub-unit of a multiple family project should have some unique elements to create a sense of place and identity.

- a. Individual units within a project should be distinguishable from each other, and should have separate entrances and entry paths.
- b. The common space of each cluster should be designed so that the size, dimensions, grading, planting and site furniture of each are different.
- c. Every dwelling unit should be provided with a usable private garden, yard, patio, or balcony area.

35.15 Back and front entrances to planned and multiple family dwellings should be clearly identified and distinguished from each other.



- a. Where dwellings have two doors, the difference between formal and informal entries should be made clear through the location of guest parking, sidewalk design, address identification, and pathways.

35.16 Planned and multiple family residential projects should balance the need for privacy with the need for surveillance.

- a. Windows should be located so that surveillance of semi-private public spaces and pedestrian paths is possible from frequently used rooms without permitting close-in view from those areas to the dwelling.

#### Objective 36.0

Provide commercial areas within the City which are conveniently located, efficient, attractive, and have safe and easy pedestrian and vehicular circulation in order to serve the retail and service commercial needs of Moreno Valley residents and businesses.

#### Policy Statements:

36.1 Commercial use types permitted within the commercial land use designations as shown on the Moreno Valley General Plan Land Use Map, shall be defined as follows:

- a. **Administrative and Professional Offices:** Activities typically include, but are not limited to, executive management, administrative, or clerical uses of private and public utility firms. Additional activities include the provision of design advice, information or consultation of a professional nature. Uses typically include, but are not limited to, corporate headquarters, branch offices, data storage centers, architect's, lawyer's, insurance sales, financial planner's and accountant's offices.

- b. **Animal Care:** Activities typically include, but are not limited to, the provision of animal care treatment and boarding services of large and small animals. Uses typically include, but are not limited to animal clinics and hospitals, kennels, and stables.
- c. **Automotive Fleet Storage:** Activities typically include, but are not limited to, the storage of vehicles used regularly in business operations and not available for sale on site. Such uses typically include, but are not necessarily limited to, overnight storage of rental cars, mobile catering trucks, and taxi cabs.
- d. **Automotive Rental Agencies:** Activities typically include, but are not necessarily limited to, the rental from the premises of motor vehicles, including provision for incidental maintenance services.
- e. **Automotive Sales:** Activities typically include, but are not necessarily limited to, the display, retail sale, or rental of new and used automobiles, minor automotive repair, automotive body work, and installation of accessories.
- f. **Automotive service stations:** Activities typically include, but are not necessarily limited to the sale from the premises of goods and the provision of services normally required in the daily operation of motor vehicles, including the principal sale of petroleum products, the incidental sale of replacement items, and the performance of minor repairs.
- g. **Building Maintenance Services:** Activities typically include, but are not necessarily limited to, maintenance and custodial services, window cleaning services, disinfecting and exterminating services, and janitorial services.

- h. **Building Supplies and Retail Sales:** Activities typically include but are not necessarily limited to, the retail sale or rental from the premises of goods and equipment, including paint, glass, hardware, fixtures, electrical supplies and lumber and hardware stores. Outdoor storage may be permitted subject to screening requirements.
- i. **Business Supply Retail and Service:** Activities typically include, but are not necessarily limited to, retail sales, rental or repair from the premises of office equipment, office supplies, and similar office goods primarily to firms and other organizations utilizing the goods rather than to individuals. The sale or rental of motor vehicles and the sale of materials used in construction of building materials or other structures should be excluded from this use type.
- j. **Business Support Services:** Activities typically include, but are not necessarily limited to, firms rather than individuals of a clerical, employment, or minor processing nature, including multi-copy and blue-print services. The printing of books, other than pamphlets and reports for another firm, should be excluded from this use type.
- k. **Communications Services:** Activities typically include, but are not necessarily limited to, broadcasting and other information relay services accomplished primarily through use of electronic and telephonic mechanisms. Uses typically include, but are not necessarily limited to, television and radio studios and telegraph offices.
- l. **Conference and Convention Facilities:** Activities typically include, but are not necessarily limited to, meeting rooms and halls for conference and conventions along with ancillary

catering services. While these uses are typically associated with a hotel, conference/convention facilities may occur as freestanding structures.

- m. **Convenience Sales and Service:** Activities typically include, but are not necessarily limited to, the retail sales from the premises of frequently needed small personal convenience items and professional services. Uses typically include, but are not necessarily limited to, drug store, stores selling toiletries or magazines, beauty and barber shops, florist shops, and apparel laundering and dry cleaning agencies.
- n. **Durable Goods Sales:** Activities typically include, but are not necessarily limited to, the retail sale of durable goods from the premises, which are purchased infrequently. Uses typically include, but are not necessarily limited to, furniture, piano and organ, major appliance, and carpet and flooring stores.
- o. **Eating and Drinking Establishments:** Activities typically include, but are not necessarily limited to, the retail sale from the premises of food or beverages prepared for on-premises consumption. Uses typically include, but are not necessarily limited to, restaurants and bars, and should exclude fast food type services.
- p. **Entertainment:** Activities typically include, but are not necessarily limited to, sports performed either indoors or outdoors, cultural, educational, and entertainment services within an enclosed building to assembled groups of spectators or participants, and activities typically performed at private and non-profit clubs and lodges. Uses typically include, but are not

necessarily limited to, swimming centers, skating rinks, bowling alleys, dance halls, theaters and meeting halls.

- q. **Fast Food Sales:** Activities typically include, but are not necessarily limited to, the retail sale from the premises of easily prepared foods and beverages such as hamburgers, hot dogs, chicken, and tacos for either on-site or off-site consumption. Uses may include, but would not necessarily be limited to, drive-in type restaurants.
- r. **Financial Institutions:** Uses shall typically include, but should not necessarily be limited to, banks, savings and loans, and credit unions.
- s. **Food and Beverage Sales:** Activities include, but are not necessarily limited to, the retail sale from the premises of food and beverages for off-site consumption. Uses shall typically include, but are not necessarily limited to, food markets, liquor stores, and retail bakeries.
- t. **Funeral and Crematory Services:** Activities typically include, but are not necessarily limited to, services involving the care, preparation, and disposition of human dead other than cemeteries. Uses typically include, but are not necessarily limited to, funeral homes, crematories, and mausoleums.
- u. **Health Clubs and Spas:** Activities typically include, but are not necessarily limited to, sport and health-related activities performed either indoors or outdoors. Uses typically include, but are not necessarily limited to, health clubs, spas, gyms, and tennis clubs.



- v. Heavy Equipment Sales and Rentals: Activities typically include, but are not necessarily limited to, the sale or rental, from the premises, of heavy construction equipment, farm equipment, trucks and aircraft, as well as maintenance. Uses typically include, but are not necessarily limited to, farm equipment, heavy truck, large boat (over 25 feet), and heavy construction equipment dealers.
- w. Hotels, Hometels, and Motels: Activities typically include, but are not necessarily limited to, lodging services, transient guests on a less-than-monthly basis, other than in the case of such other uses as private boarding houses. Uses typically include, but are not necessarily limited to, hotels, motels, and hometels (which may provide longer term residence).
- x. Laundry Services: Activities typically include, but are not necessarily limited to, institutional or commercial linen supply and laundry services, dry cleaning plants, rug cleaning, and diaper service laundries.
- y. Medical and Health Care Services: Activities typically include, but are not necessarily limited to, therapeutic, preventive, or correctional personal treatment by physicians, dentists, and other medical practitioners, as well as the provision of medical testing and analysis services. Health care uses typically include those performed by medical clinics, family planning clinics, in-patient health care facilities, and hospitals.

z. **Personal Services:** Activities typically include, but are not necessarily limited to, information, instruction and similar services of a personal nature. Uses typically include, but are not necessarily limited to, driving schools, day care facilities, travel bureaus and agencies, and photography studios.

aa. **Vocational and Trade Schools:** Activities typically include, but are not necessarily limited to, organized instruction of work-related skills by private institutions and firms.

36.2 Within the APZ I and APZ II zones as shown in the most recent March Air Force Base AICUZ Report, residential uses shall not be permitted, and business uses shall be restricted to low intensity uses.

a. Development density of uses otherwise permitted by the Moreno Valley General Plan Land Use map shall not exceed the intensity of existing development within the APZ zone at the time of adoption of the General Plan.

36.3 The following uses are considered to be compatible within the March Air Force Base APZ I and APZ II designations:

a. Retail sales, provided that development density does not exceed intensities as specified in Policy 36.2(a).

b. Manufacturing, assembly, and testing uses, the operation of which is automated with a limited number of personnel.

c. Warehousing.

d. Storage uses, including self storage which requires a limited number of caretaker personnel.

e. Auto rental agencies and storage of vehicles for rental.

- f. Pay parking lots.
- g. Printing and lithography.

36.4 The following uses are expressly prohibited within the March Air Force APZ I and APZ II designations.

- a. High density public assembly.
- b. Single and multiple family residential, hotels, motels, rest/retirement homes, etc.
- c. Landfills.

36.5 The primary purpose of areas designated *Neighborhood Commercial* on the Moreno Valley General Plan Land Use map is to provide for the daily shopping needs of area residents with a wide range of common retail and personal service needs.

- a. Within Neighborhood Commercial designations the following commercial land use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

- Animal Care
- Automotive Service Stations
- Business Supply Retail and Services
- Convenience Sales and Services
- Eating and Drinking Establishments
- Fast Food Sales
- Financial Institutions
- Food and Beverage Sales
- Health Clubs and Spas
- Laundry Services
- Personal Services

- b. Within the Neighborhood Commercial land use designation, the following Public/Quasi-Public use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Cultural Activities: Those activities which shall typically include, but not necessarily be limited to, those performed by public and private nonprofit museums, art galleries, and libraries, performing arts facilities, and non-profit organizations dedicated to public service and/or education

Religious Assembly

- c. The development of new, small convenience centers on sites of less than eight acres is discouraged.

36.6 The primary purpose of areas designated *Community Commercial* on the Moreno Valley General Plan Land Use map is to provide for the general shopping needs of area residents and workers with a variety of retail and personal services.

- a. Within the Community Commercial designation, the following commercial use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Animal Care  
Automotive Rental Agencies  
Automotive Sales  
Automotive Service Stations  
Building Maintenance Services  
Building Supplies and Retail Sales  
Business Supply Retail and Service  
Business Support Services  
Communication Services  
Conference and Convention Facilities  
Convenience Sales and Services  
Durable Goods Sales  
Eating and Drinking Establishments  
Entertainment  
Fast Food Sales  
Financial Institutions  
Food and Beverage Sales  
Funeral and Crematory Services  
Health Clubs and Spas  
Hotels, Motels, and Homotels

Laundry Services  
Medical and Health Care Services  
Personal Services  
Vocational and Trade Schools

- b. In addition to the cultural and religious activities permitted within the Neighborhood Commercial designation as discussed above, the following Public/Quasi Public use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

(1) Civic Administration: Activities typically include, but are not necessarily limited to, management, administration, or clerical uses performed by public, quasi-public, and public utility agencies.

(2) Public Assembly: Activities typically include, but are not necessarily limited to, those performed by or at such institutions and installations as parks, botanical gardens, passive open space areas, public and semi-public playgrounds and playing fields, active open space areas, and both public and semi-public meeting halls and facilities.

- c. Within the Community Commercial designation, the following Manufacturing and Assembly Use Types, as well as Wholesale, Storage, and Distribution Uses may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

(1) Automotive and Light Truck Repair-Minor: Activities typically include, but are not necessarily limited to, automotive and light truck repair, the retail sale of goods and services for automotive vehicles and light trucks, and the cleaning



and washing of automotive vehicles. Uses typically include, but are not necessarily limited to brake, muffler and tire shops and automotive drive-through car washes. Heavier automobile repair such as transmission and engine repair and auto body shops should not be included within this use classification.

- d. Community Commercial land uses that will serve the entire community of Moreno Valley or subregion in which it is located, are to be encouraged within identifiable centers along Alessandro Boulevard, State Route 60, and I-215, and to be discouraged in other areas.

36.7 The primary purpose of areas designated *Village Commercial* on the Moreno Valley General Plan Land Use map is to provide for the establishment of commercial and office-related land use types which recognize and are compatible with the historical, small town nature of the original Moreno town site.

- a. Within the Village Commercial designation as shown on the land use map, the following commercial use types may be appropriate subject to applicable general plan policies and Moreno Valley ordinances:

Administrative and Professional Offices  
Business Support Services  
Communication Services  
Convenience Sales and Services  
Eating and Drinking Establishments  
Entertainment  
Financial Institutions  
Food and Beverage Sales  
Personal Services

- b. Within the Village Commercial designation as shown on the land use map, the following Public/Quasi-Public use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances:

Cultural Facilities

36.8 The primary purpose of areas designated *Office* on the Moreno Valley General Plan Land Use map is to provide areas for the establishment of park-like office-based working environments for corporate and general, professional and administrative offices, commercial services that are required to support major business development, and retail facilities, which support business operations and which can take advantage of high traffic volume street frontages.

- a. Within the Office designation, the following commercial use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Administrative and Professional Offices  
Automotive Rental Agencies  
Automotive Service Stations  
Business Supply Retail and Service  
Business Support Services  
Conference and Convention Facilities  
Eating and Drinking Establishments  
Entertainment  
Health Clubs and Spas  
Fast Food Sales  
Financial Institutions  
Food and Beverage Sales  
Hotels, Hometels, and Motels  
Medical and Health Care Facilities  
Personal Services  
Vocational and Trade Schools  
Senior Citizens Apartment and/or  
Congregate Care Facilities; subject  
to applicable General Plan Policies  
and Moreno Valley Ordinance  
provision.



- b. Within the Office designation, Public/Quasi-Public use types including Civic Administration, Cultural Facilities, and Public Assembly, as discussed in the Commercial categories above, may also be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.

36.9 All business office and commercial centers shall be located in such a manner as to complement and not conflict with adjoining residential areas.

36.10 Commercial buildings and projects should be designed so as to have a central place of main focus or feature.

36.11 Commercial development should be oriented toward pedestrian use.

- a. Buildings should be designed and sited so as to present a human-scale environment, including identifiable pedestrian spaces.
- b. Uses within pedestrian spaces should contribute to a varied and lively streetscape.
- c. Buildings facing pedestrian ways and plazas should incorporate design features that provide visual interest at the street level.
- d. Building setbacks along major streets should be varied to create plaza-like areas which attract pedestrians whenever possible.

36.12 With respect to the existing "free standing" commercial enterprises and commercial building pads along Sunnymead Boulevard, the City shall maximize the economic position of those commercial activities by promoting distinctive, high image/value commercial clusters at key nodes such as those at the westerly City entry, and at Heacock Street and Perris Boulevard.

- 36.13 The City shall ensure, through the site plan review process, that community commercial facilities are oriented to the pedestrian by the incorporation of seating areas, courtyards, landscaping, and similar measures.
- 36.14 The City shall require reciprocal parking and access agreements between individual commercial parcels within existing commercial strips along Sunnymead Boulevard, Alessandro Boulevard, Heacock Street, Perris Boulevard, and elsewhere.
- 36.15 Building placement within office areas should occur at or near the setback line in order to project a desirable architectural image contiguous to the street.
- a. Parking areas should be removed from the streetscape to the extent possible.
- 36.16 Large structures should incorporate setbacks and variations in the massing of building bulk along major streets to provide variety and visual interest to the streetscape.
- 36.17 Commercial loading areas shall be provided, and shall be oriented away from the street and from residential edges.
- a. If loading areas cannot be so located, they shall be screened from public view.
- b. Access to service bays of automotive uses shall be from the interior of the site.
- 36.18 Service stations, mini-markets, and other automobile-related uses proposed at corner locations shall be oriented away from the street frontage.
- a. Rear building elevations are to be oriented toward the corner, and shall have architectural details consistent with the overall design theme.

- b. Access to service bays of automotive uses shall be from the interior of the site.

36.19 Internal roadways shall be designed so that direct access is available to all structures visible from a particular parking area entrance in order to eliminate unnecessary vehicle travel, and to improve emergency response.

36.20 The City shall require coordinated signing programs within multi-tenant commercial developments, require that signs be architecturally integrated with building designs, and that their size be limited to that necessary to adequately provide identification and direction.

36.21 Excessively large signage, internally lighted signs, and externally lighted signs other than at main entrances shall be discouraged.

36.22 Commercial areas shall provide adequate lighting for the security and safety of onsite parking, loading and pedestrian areas as well as adequate screening where such aesthetic treatment is required and can be provided without compromising the surveillance of such areas for safety and security purposes.

36.23 Commercial centers shall be developed in a manner that is architecturally harmonious with a defined theme, and shall be developed in accordance with the following design guidelines:

- a. Materials, textures, colors, and architectural detailing shall be consistent with the specified design theme.
- b. Architectural elements such as variations in roof lines and building masses broken into smaller components shall be encouraged.



- c. The use of earth tones which reinforce compatibility with the rural character of Moreno Valley shall be encouraged.
- d. Recesses, reveals, projections, architectural trim, and other elements shall be encouraged to enhance the architectural image of structures.
- e. Shadow patterns created by architectural elements such as overhangs, projections, or recession of stories, balconies, reveals, and awnings are encouraged in order to contribute to a building's character and aid in climate control.
- f. The following design elements shall be encouraged in conjunction with the design and construction of commercial buildings:
  - (1) Richness of surface and texture.
  - (2) Equal solid-to-void building wall ratios.
  - (3) Multi-planed, pitched roofs.
  - (4) Vegetation integrated with building walls and details such as trellises.
  - (5) Roof overhangs.
  - (6) Regular or traditional window rhythms.

36.24 The following architectural elements shall be discouraged in conjunction with the construction of commercial buildings:

- a. Highly reflective surfaces over the majority of the facade which is visible to the public.
- b. Large, blank walls.
- c. Flat roofs without mansards.
- d. Split face or exposed concrete block.

- e. Metal or plastic siding.
- f. Irregular, window shapes and rhythms.

36.25 Ground mounted equipment incidental to commercial development shall be appropriately screened with solid walls and/or landscaping. Equipment location shall be away from the front of the building, and screening must be similar to adjacent architecture and materials.

36.26 Commercial loading and trash enclosure areas shall be screened from public view areas and adjacent residential developments, and shall be located a minimum of 35 feet from adjacent residential structures.

36.27 Roof-mounted equipment shall be screened from public view.

- a. All roof screens must be solid and continuous. Equipment must be covered by continuous grills or louvers.
- b. Roof screens will be sheathed in a matching or complementary material to the exterior building material and may include metal panels, aluminum, copper, or ceramic tile.
- c. Picket fence screening shall not be permitted.
- d. Attached standing-seam metal roofs may be permitted with pitches varying from 5:12 to 9:12. Pitches shall be consistent with each building.
- e. Mechanical plants and distribution networks shall be minimized and contained within efficient roof-top penthouses.

## Objective 37.0

Establish an active and healthy tourist commercial industry within the City of Moreno Valley.

### Policy Statements:

37.1 The primary purpose of areas designated *Tourist Recreation Commercial* on the Moreno Valley General Plan Land Use Map is to provide those commercial support activities that are necessary and/or incidental to recreational uses within the study area and emphasize common tourist-oriented activities and retail services while meeting the personal service needs of tourists and city residents.

- a. Within Tourist Recreation Commercial designations as shown on the Land Use Map, recreation-oriented, residential land use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions to the extent that they are incidental to and complement the overall recreational character of the area.
- b. Within Tourist Recreation Commercial designations as shown on the Land Use Map, the following commercial land use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions to the extent that they support and complement the overall recreational character of the area.

Administrative and Professional Offices  
Animal Care  
Communication Services  
Conference and Convention Facilities  
Convenience Sales and Service  
Eating and Drinking Establishments  
Entertainment  
Fast Food Sales  
Food and Beverage Sale

Health Clubs and Spas  
Hotels, Motels and Homotels  
Medical and Health Care Services  
Personal Services

- c. Within Tourist Recreation Commercial designations as shown on the Land Use Map, the following commercial land use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Cultural Activities  
Public Assembly

- 37.2 The City shall recognize the "gateway status" of lands in the vicinity of the intersection of I-215 and State Route 60, at the intersection of Alessandro Boulevard and I-215, at the intersection of Perris Boulevard and State Route 60, and at State Route 60 and Gilman Springs Road.
- 37.3 The City shall continue to maintain and, where possible, take measures to strengthen the emphasis on food and lodging in the vicinity of Sunnymead Boulevard.
- 37.4 The City shall encourage the development of food and lodging in the vicinity of the intersection of State Route 60 and Perris Boulevard, and within the vicinity of the southwest quadrant of Gilman Springs Road and State Route 60.
- 37.5 In the vicinity of those areas designated as having "gateway status", the City shall encourage community identification signing and shall emphasize such services and facilities that are oriented to the needs of freeway travelers and tourists.
- 37.6 In the vicinities of those areas designated as having "gateway status", the City shall emphasize the recreational amenities provided by the Lake Perris Recreation Area, the Quail Lake Resort and Golf

Course, and the De Anza Cycle Park, as well as the aesthetic opportunities offered by Box Springs Mountain Park and the San Jacinto Wildlife Area.

#### **Objective 38.0**

Promote a mix of employment uses which provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of a specific, well-defined pattern of industrial activities which is compatible with residential, commercial, institutional, and open space uses located elsewhere in the community; has good access to the regional transportation system; accommodates the personal needs of workers and business visitors; and which meets the service needs of local businesses.

#### **Policy Statements:**

- 38.1 Manufacturing and Assembly Use Types allowable within the City of Moreno Valley, shall include the following:
- a. Automotive and Light Truck Repair-Minor: Activities include, but are not necessarily limited to, automotive and light truck repair, the retail sale of goods and services for automotive vehicles and light trucks (less than 6000 lbs.), and the cleaning and washing of automotive vehicles. Uses typically include, but are not necessarily limited to, brake, muffler and tire shops and automotive drive-through car washes. Heavier automobile repair such as transmission and engine repair and auto body shops should not be included in this land use type.
  - b. Automotive and Light Truck Repair-Major: Activities typically include, but are not necessarily limited to, automotive and light truck repair,



heavy automobile and truck repair, such as transmission and engine repair, automotive painting and body work, and the installation of major accessories.

- c. Custom Manufacturing and Assembly: Activities typically include, but are not necessarily limited to, manufacturing, processing, assembling, packaging, treatment, or fabrication of custom-made products such as jewelry, furniture, art objects, clothing, instruments, and the onsite wholesale of the goods produced. The uses included in this land use type shall not produce odors, noise, vibration, or particulates which would adversely affect users in the same structure or on the same site.
- d. Light Manufacturing and Assembly: Activities typically include, but are not necessarily limited to, research and development, including laboratories, labor intensive manufacturing, assembly, or repair processes which do not involve frequent truck trips or the transport of large scale products. The activities included in this land use type shall not produce odors, noise, vibration, or particulates which would adversely affect uses within the same structure or on the same site.
- e. General Manufacturing and Assembly: Activities typically include, but are not necessarily limited to, manufacturing, compounding of materials, processing, assembly, packaging, treatment, or fabrication activities which may involve frequent truck traffic or the transportation of large scale products. Uses which require massive structures outside of buildings, such as cranes or conveyer systems, or unscreened open air storage of large quantities of raw, semi-refined, or finished products, shall not be permitted within this land use type.

38.2 Wholesale, Storage, and Distribution Uses permitted within the City of Moreno Valley shall include the following:

- a. Building Contractor's Offices and Yards: Activities typically include, but are not necessarily limited to, offices and storage of equipment, materials, and vehicles for contractors who are in the trades involving construction activities. Storage yard uses may include, but should not be limited to, the maintenance and outdoor storage of large construction equipment such as earthmoving equipment, and screened outdoor storage of building materials.
- b. Light Wholesale, Storage and Distribution: Activities typically include, but are not necessarily limited to, wholesaling, storage, and warehousing services within enclosed buildings, storage and wholesale to retailers from the premises of finished goods. Trucking services and terminals, storage and wholesaling from the premises of unfinished, raw and semi-refined products requiring further processing; fabrication; and manufacturing; and other storage should be excluded from this land use type.
- c. General Wholesale, Storage, and Distribution: Activities typically include, but are not necessarily limited to warehousing, storage, freight handling, shipping, trucking services and terminals, storage and warehousing from the premises of unfinished, raw, and semi-refined products requiring further processing; fabrication; or manufacturing. Outdoor storage shall be permitted subject to applicable screening requirements.

38.3 The primary purpose of areas designated *Business Park* on the Moreno Valley General Plan Land Use map is to provide for light industrial, research and

development, and office-based firms seeking an attractive and pleasant working environment and a prestige location, including such uses as research and development, business support services, office/administrative facilities, and commercial uses requiring extensive land areas.

- a. Within the Business Park classification, the following manufacturing and assembly use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Automotive and Light Truck Repair-  
Minor  
Light Manufacturing and Assembly  
Custom Manufacturing and Assembly

- b. Within the Business Park designation, the following wholesale, storage, and distribution use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Light Wholesale, Storage, and Distribution

- c. Within the Business Park classification, the following commercial land use types, as previously discussed herein, may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Administrative and Professional Offices  
Automotive Rental Agencies  
Business Support Services  
Communication Services  
Conference/Convention Facilities  
Durable Goods Sales, Wholesale and  
Retail  
Eating/Drinking Establishments  
Entertainment  
Financial Institutions  
Health Clubs and Spas  
Fast Food Sales

Hotels, Hometels, and Motels  
Laundry Services  
Medical and Health Care Services  
Personal Services  
Professional Services  
Retail Sales of Goods Produced or  
Warehoused Onsite  
Vocational and Trade Schools

- d. Within the Business Park classification, the following Public/Quasi-Public use types as previously defined, may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Civic Administration  
Cultural Facilities  
Public Assembly  
Religious Assembly

- e. Within the Business Park classification, residential uses shall be limited to that of a caretakers residence, and then shall only be permitted where 24-hour surveillance is necessary.
- f. The architecture and site design of developments within the Business Park designation shall be upgraded over that normally associated with industrial developments by the formulation and application of development standards that resemble those normally associated with less intensive, commercial development.

- 38.4 The primary purpose of areas designated *Industrial* on the Moreno Valley General Plan Land Use map is to provide for manufacturing, research and development, warehousing and distribution, and multi-tenant industrial uses, as well as certain supporting administration and professional offices and commercial activities on a limited basis.

a. Industrial developments within the City of Moreno Valley shall be primarily low-rise in character, comprised of buildings that are generally single story.

b. Within the Industrial classification, in addition to the commercial use types permitted within the Business Park designation above, the following commercial use types may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

Automotive Fleet Storage  
Building Supplies, Wholesaling, and  
Limited Retail  
Retail Sales of Goods Produced or  
Warehoused Onsite

38.5 Within the Industrial designation, caretakers residences may also be permitted as in the Business Park designation, where 24-hour surveillance is required.

38.6 Manufacturing and industrial uses shall be located in such a manner as to not create adverse impacts on surrounding land uses and/or the City circulation system.

38.7 All manufacturing and industrial uses shall be adequately screened to reduce glare, noise, dust, and vibrations.

38.8 All manufacturing and industrial uses adjacent to residential land uses, either existing or proposed, shall include a buffer zone or noise attenuation wall to reduce outside noise levels at the property line to an acceptable level.

38.9 The business park environment should blend well designed and functional buildings with landscape.

38.10 Solid walls and landscaping should be used to screen loading, service, ground-mounted equipment (such as transformers), and trash storage areas from public view.



- 38.11 Truck docks and trash storage areas are to be closed off by roll-down or another appropriate type of door.
- a. These doors should be arranged in an organized manner, integrated within the overall design of the project, and screened from public view.
- 38.12 All outside storage and loading docks shall be completely screened from public view.
- 38.13 Onsite parking and loading areas within manufacturing and industrial developments shall be designed in such a manner as to provide direct access to major or local industrial streets, while prohibiting primary access through residential areas.
- 38.14 Signs within industrial areas shall be permitted for the purpose of identification and direction only, and, in the case of multi-tenant manufacturing uses or mixed-use industrial/commercial developments shall be architecturally integrated with building designs and coordinated to create an overall sign theme for the project.
- 38.15 Industrial and manufacturing developments shall be required to provide adequate lighting for the security and safety of onsite parking, loading, shipping and receiving, and pedestrian and working areas.
- 38.16 Within the constraints of utility and economic feasibility, manufacturing and industrial buildings shall display architectural statements that are aesthetically pleasing, and shall be designed in accordance with the following design guidelines:
- a. Although no particular "style" is suggested the use of contemporary, clean, architectural expressions is encouraged.
- b. Blank building elevations plotted parallel to major streets shall be discouraged.

- c. Entries into industrial buildings should be well defined through the use of projections, recesses, entry space frames, pergolas, colonnades, raised planters, seating elements, surface texture/enhanced paving elements, low-level lighting bollards, or other elements designed to announce entrance into these structures. Blank "unarticulated" building entries are discouraged.
- d. Variety should be provided in the surface of exterior walls with pilasters, deep reveals at construction joints, and staggering of wall components.
- e. Roof mounted equipment shall be screened from public view.
  - 1. All roof screens must be solid and continuous. Equipment must be covered by continuous grills or louvers.
  - 2. Roof screens shall be sheathed in a matching or complementary material and may include metal panels, aluminum, copper, or ceramic tile.
  - 3. Picket fence screening is not permitted.
  - 4. Pitched standing-seam metal roofs as accent elements shall be permitted with pitches varying from 6:12 to 9:12. Pitch must be consistent within each building.

#### Objective 39.0

Maintain an adequate inventory of lands for the conduct of public, quasi-public, and institutional activities, including protection of areas needed for future public, quasi-public, and institutional facilities.

## Policy Statements:

39.1 Within areas designated *Public/Quasi-Public* as shown on the Moreno Valley General Plan Land Use map, the following activities and land uses may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions:

**Civic Administration:** Activities typically include, but are not necessarily limited to, management, administration, or clerical uses performed by public, quasi-public, and public utilities.

**Cultural:** Activities typically include, but are not necessarily limited to, those performed by public and private nonprofit museums, art galleries, and libraries, and performing arts facilities.

**Extensive Impact Utility Facilities:** Activities typically include, but are not necessarily limited to, those performed by public agencies or which are strongly vested in the public interest, and which produce or may produce a substantial impact upon the surrounding area. Uses typically include, but are not necessarily limited to, the following institutions and installations:

- a. Irrigation canals and flood control channels.
- b. Detention and correctional facilities.
- c. Electric, gas, and petroleum transmission facilities.
- d. Garbage or refuse disposal facilities.
- e. Major mail processing centers.
- f. Radio and television transmission facilities, including, but not limited to, booster or relay stations.
- g. Bus terminals and bus storage facilities.

- h. Public utility corporations or truck yards.
- i. Reservoirs, water tanks, and water treatment facilities.
- j. Sewage treatment facilities and transmission lines, exclusive of septic tanks.
- k. Power plants.
- l. Truck terminals operated by a public agency.

Public Assembly: Activities typically include, but are not necessarily limited to, those performed by or at the following institutions:

- a. Parks, botanical gardens, and open space areas of a passive character.
- b. Public and semi-public playgrounds and playing fields, and open space areas of an active use character.
- c. Public and semi-public meeting halls and facilities.

Public Safety and Utility Services

Religious Assembly

#### Objective 40.0

Encourage open space preservation through appropriate land use policies that recognize the valuable natural resources and areas required for protection of public safety that exist in the City.

#### Policy Statements:

- 40.1 The primary purpose of areas designated *Open Space* and *Floodplain* shall be the provision of recreational facilities, preservation of environmental values, and protection of public safety.

- 40.2 Within areas designated *Open Space*, only uses consistent with the provision of public recreation (active and passive) and cultural/community activities may be considered appropriate, subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- 40.3 Within areas designated *Floodplain*, on the Moreno Valley General Plan Land Use map, only uses consistent with the protection of the public health and safety may be considered appropriate, subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- a. Permanent structures for human occupancy are not permitted.
- 40.4 Significant, existing natural resources shall be incorporated into the design of new projects rather than removed.
- 40.5 The City shall encourage the reintroduction of natural elements as part of the design review process, particularly where significant existing natural elements have been removed by necessity.

#### **Objective 41.0**

The major purpose of areas designated *Planned Residential, Planned Commercial, Planned Industrial, and Specific Plan* on the Moreno Valley General Plan Land Use map is to encourage and promote the development of larger-scaled mixed use developments for the purpose of providing adequate flexibility and innovation in residential building types, land use mixes, site design, and development concepts.

#### **Policy Statements:**

- 41.1 The primary purpose of areas designated *Planned Residential* on the Moreno Valley General Plan Land Use map is to provide a variety of housing types and sizes to meet the City's housing element goals and



objectives, and to provide for the innovative use of land resources.

- a. Within the Planned Residential classification, all residential land uses considered to be appropriate within the City of Moreno Valley may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances.
- b. In addition to residential uses, retail commercial facilities, parks and recreation, and other related uses supporting the overall residential nature of Planned Residential areas may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances.
- c. Development within areas designated Planned Residential shall be through use of a specific plan, planned development permit, or similar mechanism.

41.2 The primary purpose of areas designated *Planned Commercial* on the Moreno Valley General Plan Land Use map is to provide for innovation in retail, wholesale, and office commercial development, and to permit the development of commercial uses in a mixed use context.

- a. Within the Planned Commercial designation, all commercial land uses considered to be appropriate within the City of Moreno Valley may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances.
- b. In addition to commercial uses, residential uses, industrial facilities, parks and recreation, and other related uses supporting the overall commercial nature of Planned Commercial areas may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances.

- c. Development within areas designated Planned Commercial shall be through use of a specific plan, planned development permit, or similar mechanism.

41.3

The primary purpose of areas designated *Planned Industrial* on the Moreno Valley General Plan Land Use map is to provide for innovation in the development of manufacturing, research and development, distribution, and other industrial land uses, and to permit the development of employment-generating uses in a mixed use context.

- a. Within the Planned Industrial designation, all industrial land uses considered to be appropriate within the City of Moreno Valley may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances.
- b. In addition to industrial uses, commercial and office uses, residential development, parks and recreation, and other related uses supporting the overall industrial, employment-generating nature of Planned Industrial areas may be appropriate subject to applicable General Plan policies and Moreno Valley ordinances.
- c. Development within areas designated Planned Industrial shall be through use of a specific plan, planned development permit, or similar mechanism.

41.4

In order to provide superior design solutions, reduce adverse environmental impacts, preserve scenic values, and enhance the provision of open space and other amenities, transfers of residential densities permitted under the General Plan may be accomplished in accordance with the following:

- a. The transfer of residential densities may be accomplished only pursuant to approval of a specific plan or planned unit development.
- b. Up to one hundred percent (100%) of the density indicated on the General Plan Land Use map may be transferred within a single, contiguous specific plan or planned unit development project. Densities may not be transferred into or from a specific plan or planned unit development project area.
- c. Transferable densities shall not accrue to 1) areas required to be retained in open space for the protection of public health and safety, 2) open space areas required to meet minimum park lands requirements, or 3) other lands required for public facilities which are being dedicated to mitigate project impacts.
- d. The proposed transfer of densities shall be accomplished such that the project results in a superior use of land, increased sensitivity to the environment, and/or enhanced project amenities without an increased burden of public facilities and services.
- e. The proposed transfer of densities shall be accomplished such that land uses within the project area are internally compatible, and the resulting project is compatible with the character of surrounding development.
- f. Where residential density transfers are proposed within a multiple use project, development incentives, including bonuses of up to 100 percent over nominal General Plan densities, may be approved for the provision of significant nonretail primary employment, provided a method is

established to ensure that job opportunities are accomplished in a timely manner related to the rate of residential development.

41.5 The primary purpose of the area designated "Village at Sunnymead" is to provide a variety of residential, commercial, office, cultural, and recreational opportunities in order to achieve the following:

- a. A diversity of uses appropriate to a suburban "central city" area, identifying appropriate areas for a full range of office, commercial, service commercial, and residential uses, consistent with the General Plan;
- b. Reconfiguration and consolidation of elongated parcels along with elimination of flag lots, resulting in a more logical pattern of parcelization.
- c. A logical and gradual replacement of older land uses on those small parcels of land functioning at less than their market potential.
- d. Where possible and desirable, consolidation of access points and creation of reciprocal access agreements between adjacent parcels in order to create larger, more logical development increments.
- e. Strengthening of the City's economic base and provision of employment opportunities close to home for City residents.
- f. Distinctive, high image/value commercial clusters at the westerly City entry, and at the Heacock and Perris intersections with Sunnymead Boulevard.
- g. Harmonious transitions between commercial, office, multiple family residential, and single family residential uses;

- h. A sense of human scale and provision of pedestrian-oriented amenities at the street level among a variety of commercial and residential uses.
- i. Residential development within R5/15 portion of the "Village at Sunnymead" shall be subject to the following density criteria as shown in Table V-LL:

TABLE V-LL

VILLAGE AT SUNNYMEAD  
RESIDENTIAL DENSITY CRITERIA

Square Footage		Maximum		Minimum
From	To	Net Density	Units*	Net Footage Per Unit
0	10,890	4.00	1	10,890
10,891	14,520	6.00	2	7,260
14,521	17,425	7.50	3	5,808
17,426	19,800	8.80	4	4,950
19,801	21,780	10.00	5	4,356
21,781	23,440	11.15	6	3,907
23,441	24,890	12.25	7	3,556
24,891	26,135	13.33	8	3,267
26,136	27,320	14.40	9	3,025
27,231	29,040	15.00	10	2,904
29,041+	N/A	15.00	N/A	2,904

- 41.6 Within the Specific Plan classification, all land uses considered to be appropriate within the City of Moreno Valley may be appropriate subject to applicable General Plan policies and Moreno Valley ordinance provisions.
- 41.7 To the extent that development policies, land use standards, design guidelines, and other provisions of the Festival, Gateway, Hidden Springs, Moreno Valley Ranch, Sunnymead Boulevard, Sunnymead Ranch, and Towngate specific plans are, by their content, intended to address issues contained in the objectives, policies, and



implementation programs of the Moreno Valley General Plan, and are inconsistent with the provisions of the General Plan, then the provisions of those specific plans shall be controlling; otherwise, all other provisions of the Moreno Valley General Plan shall remain in effect.

- a. It is recognized that certain inconsistencies exist between the Moreno Valley General Plan and the previously adopted specific plans cited above. However, future amendments to these specific plans shall not create a greater degree of inconsistency between the General Plan and these specific plans.

41.8 The primary purpose of the *Hidden Springs Specific Plan* shall be to provide high quality, detached housing for entry level buyers and "move-up" opportunities for present residents of Moreno Valley and surrounding Riverside County communities.

- a. Land uses within Hidden Springs will be primarily residential in nature.
- b. In addition to residential uses, natural open space, developed park land, and trails will be provided along with commensurate infrastructure and public facilities.
- c. A maximum of 1,200 dwelling units are permitted at a maximum density of 5.0 dwelling units per acre within individual development areas.

41.9 The primary purpose of *Sunnymead Ranch* is to provide a variety of residential product types in a recreational atmosphere.

- a. Land uses within Sunnymead Ranch will be primarily residential in nature.
- b. The project will be oriented toward a lake as the major community recreational feature.

- c. In addition to residential uses, support commercial, natural open space, developed park land, and trails will be provided along with commensurate infrastructure and public facilities.
- d. A maximum of 3,492 dwelling units will be developed within Sunnymead Ranch at an average density of 4.7 units per acre.

41.10 The primary purpose of the *The Festival at Moreno Valley* is to provide a variety of freeway-oriented retail, commercial, and office uses in a master planned, multi-use development.

- a. Land uses within The Festival at Moreno Valley will be primarily commercial in nature.
- b. In addition to retail and office uses, a detention basin and a small amount of residential land will be provided.

41.11 The primary purpose of *Towngate* is the development of a high quality community offering a mix of residential housing opportunities along with a range of neighborhood, community, and regional shopping opportunities.

- a. A mixture of residential uses will be provided ranging from low density detached dwellings at a density of four to six units per acre to high density residential dwellings at 18 to 24 units per acre.
- b. A maximum of 2,423 dwellings units are permitted.
- c. The varied residential use of the site will be complemented by a diverse commercial development program including office/ employment areas and a regional commercial facility.

- d. In addition to commercial and residential land uses, Towngate will include a "town center", encompassing public, quasi-public, community, and/or commercial support facilities as a community focal point.
- e. Open spaces and developed parks will also be provided in addition to required public facilities.

41.12 The primary purpose of *Sunnymead Boulevard* is to serve as a major gateway to the City of Moreno Valley and to provide a freeway-oriented and citywide commercial focal point.

- a. A wide variety of retail and service commercial uses will be developed within the Sunnymead Boulevard corridor, along with office/employment uses.
- b. In combination with the major office area designated to the south and redevelopment agency efforts, Sunnymead Boulevard will, in the long run, function as Moreno Valley's "downtown" area.
- c. Stringent architectural and landscape requirements need to be enforced within the Sunnymead Boulevard corridor to enhance its dual functions as a community gateway and commercial focal point.
- d. Development of restaurant, hotel/motel, and entertainment uses along Sunnymead Boulevard is highly encouraged.

41.13 The primary purpose of the *Gateway* specific plan area is to provide a diversity of commercial, office, and industrial uses within an integrated development.

- a. The primary use within Gateway will be employment generating uses, including mixed use office/industrial,

general industry, and retail commercial (neighborhood and community level), with a smaller area devoted to office park uses.

- b. The entire project will be attractively landscaped to complement and enhance the image of the City's westerly gateway along Alessandro Boulevard.
- c. Comprehensive development standards will be utilized to assure that future development within this specific plan area achieves a high degree of quality and reflects a desirable image in this key gateway location.

41.14 ***Moreno Valley Ranch*** is to be a high quality recreational-oriented master-planned community combining residential, commercial, light industrial, recreational, open space, and public uses.

- a. The residential portion of Moreno Valley Ranch will consist of clustered developments centered around two major recreational facilities: a lake and a championship golf course.
- b. In addition to the major recreational features, Moreno Valley Ranch will provide developed park lands, trails, and a significant amount of natural open space.
- c. Another major focal point will be the Riverside City College campus and adjacent institutional and office uses.
- d. A total of 12,700 residential dwellings are permitted within Moreno Valley Ranch at densities ranging from a low of two to five units per acre to a high of seventeen to twenty units per acre.
- e. Support commercial uses will also be provided in addition to lands reserved for public facilities and infrastructure uses.

41.15 The primary purpose of areas designated *Planned Residential* adjacent to Moreno Valley Ranch is to extend the development standards and guidelines of the specific plan to adjacent areas, and to provide a transition in densities between Moreno Valley Ranch and adjacent rural development areas.

- a. Residential densities shall provide a logical transition between adjacent development areas within Moreno Valley Ranch and rural development areas to the north.
- b. Development within lands designated *Planned Residential* adjacent to Moreno Valley Ranch shall substantially comply with the development standards of the Moreno Valley Ranch Specific Plan.
- c. Buffer areas shall be provided along the UCR Agricultural station boundary.
- d. Implementation shall be through individual tracts which are in conformance with 1) standards and design guidelines of the Moreno Valley Ranch Specific Plan, or 2) alternative development standards of design guidelines specifically adopted for the proposed project.

41.16 The purpose of the *Civic Center/Nason-Moreno Beach Corridor* area shown on the Moreno Valley General Plan land use map is to act as a commercial/residential gateway to the City and to the Moreno Valley Civic Center.

- a. Appropriate uses within this area include a broad range of professional, office, large-scale retail, visitor serving, recreation, and residential uses, including necessary support facilities.



- b. The design of commercial and residential uses shall contribute to a gateway theme, and have a high standard of design features that complement the creation of a civic center at the northwest corner of Nason and Alessandro.
- c. In addition, the design of commercial and residential uses, shall create pedestrian linkages between major land use nodes (Moreno Beach and Nason freeway interchanges, Moreno Valley Civic Center, Pettit Hill recreation and cultural facilities, and the hospital/medical complex at future Moreno Beach and Oliver), as well as create a pedestrian-oriented atmosphere in the civic center area.
- d. It is specifically recognized that the Moreno Valley Auto Mall is to be developed within the Planned Commercial area located south of State Route 60 at Moreno Beach Drive. If the auto mall is not constructed, then other commercial and office uses may be appropriate provided that they contribute to the gateway nature of the area.
- e. The purpose of the area designated Planned Commercial located northwest of the corner of the current alignment of Gentian (future Moreno Beach Drive) and Oliver will primarily consist of professional offices, including the Hemet Valley Hospital site. In addition, medical offices will be appropriate within this area.
- f. Appropriate buffer areas must be provided adjacent to the UCR farm.

41.17 In addition to the areas specifically designated Specific Plan (SP) areas by the General Plan Land Use map, permit mixed

use development under the provisions of a Specific Plan designation that can be applied on a "floating" basis, overlaying existing General Plan land use designations community wide.

- a. The primary purpose of the "floating" basis SP designation shall be to permit greater flexibility and in turn, more creative and imaginative designs of the land uses designated in the General Plan for a particular site than could otherwise be realized by development under more rigid conventional land use regulations.
- b. Further it shall be the intent of the "floating" basis SP designation to promote more economical and efficient use of the land with the provision of a harmonious variety of building types and a high level of urban amenities, while preserving areas of natural open space value or scenic beauty.

#### **Objective 42.0**

Maintain City boundaries which are logical in terms of City service capabilities, economic development needs, social and economic interdependencies, citizen desires, and City costs and revenues.

#### **Policy Statements:**

- 42.1 The City will support and encourage the annexation of unincorporated areas within the General Plan study area for which:
  - a. Benefits will be derived by the City upon annexation;
  - b. There exists a significant social and economic interdependence and interaction between the City and the area proposed for annexation;

- c. Adequate Infrastructure and services have been or can be economically provided in accordance with current City standards;
- d. There exist sufficient mitigating social and long-term economic factors to outweigh any immediate economic disadvantage that might be imposed upon the City by the annexation;
- e. Clear compatibility exists with the community's basic identity, the goals and desires of the people and the City of Moreno Valley as a whole, and with the community's available resources;
- f. The proposed annexation will generate sufficient revenues to adequately pay for the provision of City services within a reasonable period of time; and
- g. The landowners, and citizens of Moreno Valley as a whole, are in favor of the proposed annexation to the City.

#### Objective 43.0

Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.

#### Policy Statements:

- 43.1 New development or the alteration or enlargement of existing development should be viewed not only as freestanding objects, but also as part of a street, or neighborhood, or as part of the entire community.
- 43.2 Establishment of a recognizable design theme which is compatible with surrounding existing and planned developments is encouraged.



- a. The design theme should be based upon prominent design features existing in the immediate area (i.e. trees, landforms, historic landmarks).
- b. Subtle variations in architectural and landscape components which provide visual interest, but do not create abrupt changes or cause discord in the overall character of the neighborhood are encouraged.
- c. Transitions between different projects, including provision of buffer areas, landscaping and other similar treatments are to be provided as appropriate.
- d. It is not intended, however, that one style of architecture should be dominant, but that individual structures create and enhance a high quality and harmonious appearance.

43.3 New development should be designed to create pleasing transitions to surrounding development.

- a. The bulk of new structures should relate to the prevailing or planned scale of adjacent development.
- b. Setbacks from streets and adjacent properties should relate to the scale of the structure and the importance of the street.
- c. Tall structures should be made less imposing by physically stepping them back from the street level.

43.4 Gateways which create a visual sense of entry should be included in all developments.

- a. Gateways should range in scale as appropriate with their importance, and may identify an entrance to the City, subcommunity, development project, or single building.

- b. Gateways should include enriched paving, raised medians, signage, and other features as appropriate.

43.5 New developments should be designed so as to respect the views of existing developments to the greatest extent possible.

- a. View corridors which are oriented toward existing or proposed community amenities, such as a park, open space, or natural feature should be provided.

43.6 Trash enclosures, loading areas, mechanical equipment, and outdoor storage areas shall be screened from public view as appropriate.

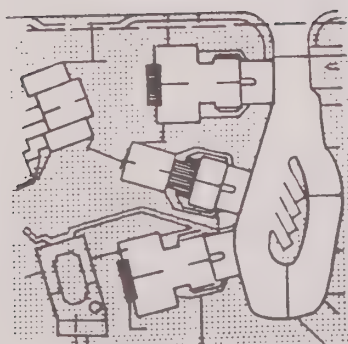
- a. Enclosures and screening shall be designed with materials which are compatible with the project's architecture, and which do not detract from the overall design theme.

43.7 All exterior wall elevations of buildings and screen walls shall have architectural treatments that enhance the appearance of the building or wall.

- a. Uniform materials and consistent style should be evident within a development project in all exterior elevations.
- b. Secondary accent materials and colors should be used to highlight building features and provide visual interest.

43.8 Multi-story buildings should be detailed so as to reduce their vertical appearance as much as possible.

- a. The level of architectural details should be greater at the ground level than at upper levels.



--- COMMON OPEN SPACE  
■ PRIVATE OPEN SPACE  
▨ USABLE OPEN SPACE



- b. Separate floor levels should be articulated with horizontal bands or stepped back from public viewing areas.
- 43.9 Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces; provide buffers and transitions as needed; and facilitate energy conservation.
- 43.10 Development projects adjacent to freeways, urban arterials, arterials, and secondary roadways shall provide a minimum of 30 feet of landscaping adjacent to the roadway as measured from the ultimate curbface.
- 43.11 Landscaped areas shall have a combination of trees, shrubs, vines, ground cover, flowers, and turf as appropriate and compatible with the surrounding environment and project design theme.
  - a. The selected combination of landscape materials shall be arranged in a harmonious manner.
  - b. The combination of hardscape materials may not exceed 20 percent of the total of any landscaped area.
- 43.12 Landscape design shall be coordinated with drainage plans for individual projects to maximize percolation of surface water from the site. Swale designs in landscaped and turf areas should be employed to slow down runoff and maximize percolation.
- 43.13 Buildings should be designed with a precise concept for adequate signage.
  - a. Provisions for sign placement, as well as sign scale in relationship to the building and readability should be an integral part of the signage concept.
- 43.14 Sign color should be compatible with building color.

- a. No more than two primary colors should be used on a sign with a secondary color used for accent or shadow detail.
- 43.15 In designing signs and sign messages, fewer, rather than more, words should be utilized to create a clean, understandable message.
  - a. Generally, symbols should be used only if they are easily recognizable or represent a definable logo.
- 43.16 The overall size and shape of signs should be such that it does not detract from the message.
  - a. As a general rule, letters should not appear to occupy more than 75 percent of the sign area.
- 43.17 Signs should communicate their message well, and be easily seen by people.
- 43.18 While providing the most effective message, signs should also be highly compatible with the building and site design relative to size, color, material, and placement.
- 43.19 Signs should be consistent with the proportion and scale of the building elements within the facade.
  - a. For example, ground-level signs should be smaller than those on higher levels, and pedestrian-oriented signs should be smaller than automobile-oriented signs.
- 43.20 Hard-to-read and overly intricate type faces are discouraged.
  - a. The letter style which is used should be appropriate to the business and the building.
- 43.21 Signs attached to the underside of a projecting canopy or protruding over a sidewalk or right-of-way may be permitted

as a special sign only if they provide pedestrian-scale atmosphere and enhance the building front.

- 43.22 Window signs shall be designed so as to be pleasing, aesthetically enhance shop fronts, geared to the pedestrian, and be at eye level.

a. Window signs should not occupy more than .15 percent of the window area.

- 43.23 Adequate onsite lighting should be provided to ensure a safe environment, but not cause nuisance levels of light or glare on adjacent properties.

- 43.24 Lighting fixtures should be attractively designed to complement the overall design theme of the project within which they are located.

- 43.25 Lighting should improve the visual identification of adjacent structures.

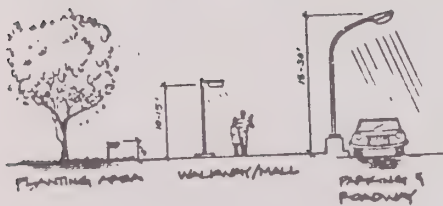
a. Within commercial areas, lighting should also help create a festive atmosphere by outlining buildings and encouraging nighttime use of areas by pedestrians.

- 43.26 Fences and walls should be discouraged unless they are needed for a specific screening, safety, or sound attenuation purpose.

- 43.27 The use of any fencing or walls should be consistent with the overall design theme of the development or adjoining existing developments.

a. Where they are needed, fences or walls should relate to both the site being developed and surrounding developments, open spaces, streets, and pedestrian ways.

b. Fencing and walls should respect existing view corridors to the greatest extent possible.



- 43.28 Fences and walls should incorporate landscape elements and changes in materials, color, or texture in order to prevent graffiti; undue glare, heat, or reflection; or aesthetic inconsistencies.
- 43.29 Development projects within the City of Moreno Valley shall provide adequate screening so that the development is shielded from the negative impacts of adjacent uses, and neighboring properties are shielded from the adverse external effects of that development.
- 43.30 Onsite utilities and ancillary equipment should be located in an inconspicuous area or vaulted underground away from public view.
- a. Where they are required to be in public view, onsite utilities and ancillary equipment should be screened with a combination of materials that best suit the overall project design theme.







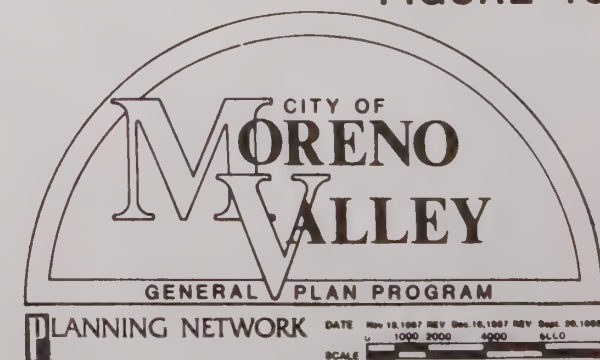
## CIRCULATION

### LEGEND

STREET CLASSIFICATION	WIDTH*	CAPACITY**
FREEWAY	N/A	115,000
DIVIDED MAJOR ARTERIAL	134'/110' 110'/86'	45,000
MAJOR ARTERIAL	100'/76'	30,000
MINOR ARTERIAL	88'/64'	20,000
COLLECTOR	78'/56' 66'/44'	10,000
SCAG REGIONAL TRANSPORTATION CORRIDOR (PROPOSED)	* R.O.W. / PAVEMENT	** VEHICLES PER DAY
FREEWAY INTERCHANGE		



FIGURE 43





#### Objective 44.0

Develop an integrated circulation system which maximizes land potential, reinforces community identity, provides "freedom of movement", and enhances the design quality of the City of Moreno Valley (see Figure 43).

#### Policy Statements:

- 44.1 The City shall require roads to meet the needs of the residents of the community without detracting from the rural atmosphere of Moreno Valley, by permitting rural road sections incorporating AC dikes in lieu of sidewalks, curbs, and gutters where such an application will serve to enhance the rural atmosphere.
- 44.2 The access and circulation design of a development project should provide for vehicles, pedestrians, and bicycles. The circulation system should be planned to reduce conflicts between vehicular, pedestrian, and bicycle traffic by separating them to the greatest extent possible.
- 44.3 Residential subdivision designs should include a hierarchy of streets within the residential area as follows:
- Residential Access Streets are the lowest order of street in the residential hierarchy, and are intended to carry the least amount of traffic at the lowest speed. These roads will provide the safest and most desirable environment for a residential neighborhood.
  - Residential Subcollector Streets are the middle order of streets, and will carry more traffic than residential access streets, including a small amount of through traffic "collected" from tributary residential access streets.





- c. Residential Collector Streets are the highest order of streets classed as residential. These streets will carry the largest volume of residential traffic, and distribute traffic between other, lower order residential streets and the City's master planned roadway system or major activity centers.
- 44.4 Design Residential Access Streets so as not to carry more traffic than that which is generated on the street itself, wherever possible.
  - 44.5 Design Residential Subcollector streets so as to exclude external through traffic which has neither origin nor destination on the subcollector or its tributary access streets.
  - 44.6 Design Residential Collector streets to minimize the number of, or to eliminate residential lots having direct frontage on them.
- a. Where this is not possible, the amount of residential frontage should not exceed the limits set forth in Table V-MM.

Table V-MM

PERCENT OF THE TOTAL LENGTH OF  
COLLECTOR STREETS  
WHICH MAY HAVE RESIDENTIAL LOTS  
FRONTING AND TAKING ACCESS FROM THEM

ADT	1000-1199	1200-1599	1600-1999	Over 2000
Allowable Access Frontage	20%	10%	5%	0%



- 44.7 Residential developments along collector and master planned roadways shall minimize the use of reverse frontage walls by such treatments as landscaping, berming, and "side-on" cul-de-sacs.
- 44.8 Parking areas should be designed to minimize visual disruption of the overall project design.
- a. Parking areas should be screened from streets to the extent consistent with police surveillance needs through a combination of mounding, landscaping, low profile walls (not to exceed three feet), and/or grade separations.
- 44.9 Parking areas should also minimize auto noise, glare, and increases in ambient temperature through the use of sound walls, screening with fences and/or landscaping.
- 44.10 Adequate off-street parking shall be incorporated into multiple family residential projects.
- a. Parking within multiple family residential projects should be located within 200 feet of the dwellings it serves.
  - b. Parking lots within multiple family residential projects shall be limited to two double aisles of cars.
  - c. Open parking areas should be clustered and treated as landscape auto plazas and courts; large open paved areas are not acceptable.
- 44.11 Within residential areas, areas for the storage of recreational vehicles, boats, and campers should be provided in such a manner as to be out of public view.
- 44.12 Driveway placement shall be designed to simplify traffic flow patterns within parking areas, and to minimize traffic conflicts.



- a. Aisles should be placed such that it is easy to reach any destination within an individual site after entering the driveway.
- b. To discourage speeding within parking areas, the maximum length of any straight aisle should be 400 feet, when possible.
- c. The alignment of aisles should enhance pedestrian circulation by allowing pedestrians to walk along rather than across aisles to reach their destination.

#### Objective 45.0

Maintain Level of Service "C" along roadway links, wherever possible.

#### Policy Statements:

- 45.1 Construct roadways to the following standards:

Table V-NN

### MASTER PLANNED ROADWAYS RIGHTS-OF-WAY AND PAVED WIDTHS (in feet)

	Right-of-Way	Paved Width
a. Divided Major Arterial	134 110	110 86
b. Major Arterial	100	76
c. Minor Arterial	88	64
d. Collector (Residential)	66	44
(Comm/Ind)	78	56
e. Local (Over 750 feet in length)	60	40
(Under 750 feet in length)	60	36

- 45.2 The purpose of identifying the extension of Davis Road as a regional transportation corridor on the Moreno Valley General Plan Circulation Element map is to recognize the regional designation of this route, but is not intended as an endorsement of this route by the City of Moreno Valley.

Significant further environmental analysis of potential impacts of the transportation corridor will be necessary before the City of Moreno Valley could endorse this route. In particular, potential impacts on wildlife need to be mitigated. Such analysis, which must be prepared by the agencies proposing the route, should explore the balance between the need for the route and the resulting biological impacts. Such analysis must also explore needed implementation measures such as buffering and other techniques of visual and physical separation that would not only protect the sensitive environmental character of the area, but also alleviate potential conflicts between vehicular traffic and use of the area as a hunting preserve. In addition, the potential growth-inducing impacts of such a highway extension must be explored and mitigated.

- 45.3 Utilize Level of Service "C" in determining average daily roadway capacity and required roadway widths.

a. Where new developments would increase traffic flows beyond the design capacity of Level C, require appropriate and feasible mitigation measures as a condition of approval.

- 45.4 Utilizing a combination of State funds, redevelopment funds, and other locally generated funds, provide needed improvements along State Route 60, including freeway and bridge widening, placement of ramp metering hardware at freeway on-ramps, and construction of a park-and-ride facility for a minimum of 200 vehicles near the State Route 60 - Interstate 215 interchange.

- 45.5 Points of access shall comply with City access regulations, and shall not conflict with other existing or planned access points.
- a. In order to maintain capacity, efficiency, and safety of the traffic flow, access to arterial roadways shall be limited to permit one point of access per 300 feet of roadway, or one access point per parcel where parcels are less than 300 feet in width.
  - b. Access points along arterial roadways shall be located no less than 100 feet from the end of any curb return, and shall be coordinated with existing or planned access points on the opposite side of the street and the breaks in median islands if any.
  - c. The frequency of access points along primary or major arterials shall be reduced by the consolidation of access points between adjacent properties where applicable.
- 45.6 Local roads should provide the means of access to primary and major arterials wherever possible.
- 45.7 On-street parking shall be a secondary concern in the consideration of the overall efficiency and capacity of street designs.
- 45.8 As a condition of approval for developments fronting both sides of a street, the City shall require that master planned streets be constructed to full width.
- 45.9 Where new developments front only one side of a street, the City shall require that master planned streets be constructed to half width plus 10 feet.

#### **Objective 46.0**

Maintain safe and adequate pedestrian, bicycle, and public transportation systems within the City of Moreno Valley to reduce vehicular travel and to support planned land uses within the City of Moreno Valley.

#### **Public Transportation Policy Statements:**

- 46.1 The City shall support and encourage the development of an efficient transportation system for the entire community, emphasizing the particular needs of the transit dependent individuals in the City such as senior citizens, the handicapped, and school students.
- 46.2 The City shall support the Riverside County Transportation Commission in the planning and development of a region-wide transportation system.
- 46.3 The City shall continue its on-going coordination and cooperation with County transit authorities toward the expansion of existing transit facilities into newly developed areas as soon as feasible, with the emphasis on services to such concentrated activity areas as commercial centers, industrial areas, high density residential areas, mobile home parks, senior citizen facilities, and other such areas that produce high levels of traffic or are prime targets for public transit use.
- 46.4 The City shall ensure, through the development review process, that all new developments make adequate provision for bus stop and turnout areas as necessary for both public transit and school bus service, as well as park-and-ride facilities where appropriate.

#### **Pedestrian Facilities Policy Statements:**

- 46.5 In order to encourage walking as an alternative to automobile travel, and to ensure the safety of the pedestrian, the City shall require the following:





- a. that all master planned secondary and larger, and all urban roads within the City shall have improved sidewalks on both sides of the road;
- b. that all collector roads within rural areas shall have an improved sidewalk on one side of the road; and
- c. that local rural streets leading to schools or bus stops have an improved sidewalk on one side of the road.

46.6 The City shall also encourage the construction of sidewalks in urban density residential areas which currently lack such facilities.

46.7 Pedestrian walks through open spaces and accessways to buildings shall be required in order to shorten walking distances.

46.8 Pedestrian walkways, plazas, and other similar features shall be highly visible and well-lighted.

- a. Amenities such as, but not limited to, enriched paving, street furniture, and raised planters, should be provided to enhance the pedestrian experience.

#### Bicycle Transportation Policy Statements:



46.9 The City, wherever possible, shall encourage bicycling as an alternative to automobile travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.

46.10 Bikeways shall link residential neighborhood areas with parks, scenic areas, and other points of interest, and should be designed to encourage intra-city travel to employment sites, civic and commercial areas, and schools.

46.11 The bikeway system shall be integrated with the City circulation system, and should be regularly maintained as part of the City's street maintenance system.



- 46.12 The City shall maintain appropriate legislation to register bicycles for identification purposes, shall support bicycle safety programs through the recreation program and the school system, and shall actively enforce laws relating to the safe operation of bicycles on City streets.
- 46.13 The bikeway system should avoid conflicts with the pedestrian/equestrian trail system, and should link local bikeways with existing or planned regional bikeways.
- 46.14 The City will assist in facilitating bicycle travel by encouraging the use of bike racks on public transit vehicles.
- 46.15 The City shall assure signing and striping of bike lanes, and shall require that commercial and industrial developments provide bicycle storage facilities for both patrons and employees.
- 46.16 A sufficient quantity of bicycle racks and/or lockers shall be provided at commercial centers, recreation facilities, and similar potential bicycle trip generators.

#### Objective 47.0

Maintain a water system which is capable of meeting the daily and peak demands of Moreno Valley residents and businesses, including the provision of adequate fire flows.

#### Policy Statements:

- 47.1 The City shall permit new developments only where and when adequate water services can be provided, and shall assure the provision of adequate water service by providing systemwide water improvements in advance of needs.

- 47.2 Where the construction of master planned water service facilities is not practical, permit the construction of interim facilities to serve present, as well as short-term future needs to the extent that 1) future construction of master planned facilities will not be jeopardized, and 2) construction of interim facilities is permitted by the governing water agency.
- 47.3 Prior to the issuance of commercial or industrial building permits, or the recordation of residential tract maps, the City shall assure the availability of adequate fire flow by requiring the testing of all fire hydrants in the vicinity of the project, and, in the absence of adequate flows, the City shall require either the installation of on-site fire protection devices or improvements that upgrade the area's water system to accommodate adequate flows.

#### Objective 48.0

Maintain a wastewater collection, treatment, and disposal system which is capable of meeting the daily and peak demands of Moreno Valley residents and businesses.

#### Policy Statements:

- 48.1 Prior to the approval of any new development application ensure that adequate sewer service capacity exists or will be available in a timely manner.
- 48.2 The design of future sewer service expansions should be such that current levels of service are maintained.
- 48.3 Where the construction of master planned sewer facilities is not practical, and where the future construction of such facilities will not be jeopardized, the City shall permit the construction of interim facilities which are sufficient to serve present, as well as short term future needs.

48.4 The City should encourage plumbing multi-family residential construction for acceptance of reclaimed water for the irrigation of home landscaping and other noncontact usage.

48.5 The City shall take appropriate measures toward the designation and preservation of land for the purpose of effluent disposal.

#### Objective 49.0

Maintain an adequate system of solid waste collection and disposal to meet existing and future needs.

#### Policy Statements:

49.1 The City should explore a suitable location, within the current sphere of influence, for the location of a solid waste landfill site that will provide City residents a local alternative to County facilities in the Pigeon Pass and Badlands areas.

49.2 The location of the landfill should be readily accessible and not in conflict with adjoining existing and planned land uses.

49.3 Recycling projects should be encouraged, not only by the efforts of the City but also by the efforts of individuals, non-profit organizations, or corporations and local businesses, as well as programs sponsored through the school district.

49.4 The City shall support regional efforts by the County of Riverside to solve the solid waste disposal problem.

#### Objective 50:

Coordinate development activity with the provision of public infrastructure and services to eliminate possible gaps in service provision.

#### Policy Statements:

- 50.1 The City shall limit the number of residential dwelling units to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.
- 50.2 The City shall encourage all public service agencies within its jurisdiction to also keep current information regarding their service capabilities.
- 50.3 The City should not approve development applications that are inconsistent with the provision of cost-effective public services and facilities.
- 50.4 The City shall ensure that all major extensions of services and utilities to facilitate land use changes shall incorporate a thorough review of the social, economic, and environmental factors surrounding such extensions.
- 50.5 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.
- 50.6 It shall be the ultimate responsibility of the sponsor of a development project to assure that all necessary infrastructure improvements (including systemwide improvements) needed to support project development are available at the time that they are needed.

## **Objective 51.0**

Establish and implement comprehensive solutions to the financing of public facilities which adequately distribute costs based on the level of benefit received and the timing of development.

### **Policy Statements:**

- 51.1 Conduct an annual review of user charges, development fees, and public facilities impact mitigation fees in accordance with AB 1600 to ensure that the charges are consistent with the costs of improvement and maintenance. Utilize the service and mitigation standards contained in the Moreno Valley General Plan as the basis for determining improvement and maintenance costs.
- 51.2 The City shall promote the establishment of benefit assessment districts to provide public facilities and services to eliminate facilities gaps and serve both existing development and new development more efficiently.
- 51.3 The City shall promote the establishment of benefit assessment districts, Mello-Roos Community Facilities Districts, tax increment financing, and other financing mechanisms in combination with programmed capital improvements to eliminate existing public service and facility gaps, and to provide necessary facilities in advance of development.
- 51.4 Existing public services and facilities deficiencies affecting an undeveloped area are to be corrected prior to or concurrent with the extension of facilities to serve the area.



51.5

The City shall review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, school facilities, and libraries. If a development project will cause the level of public service or facility provision to fall below the standards outlined in the Moreno Valley General Plan and EIR and/or the standards of applicable service agencies, appropriate on-and off-site improvements shall be provided either through conditions of approval, development fees, establishment of assessment districts, or declining approval of the project.

## M. IMPLEMENTATION PROGRAMS

1. In conjunction with review of development proposals located within the eastern and northeastern portions of the study area, apply those design and improvement standards which are uniquely expressive of a rural atmosphere and develop a rural street standard that will enhance the existing atmosphere.
2. Utilize grading permit procedures to ensure that site designs for residential development proposals within hillside areas conform to the natural terrain and consider the visual aspects from both within and without the project area.
3. Develop specific design criteria where feasible for commercial areas not expected to develop as unified centers, in the form of conceptual approaches that integrate landscaping, driveways and parking into functionally unified wholes.
4. Work with Caltrans and the Riverside County Transportation Commission to prepare a development program, including financing arrangements, for required improvements to State Route 60, including freeway and bridge widening, placement of ramp metering hardware at freeway on-ramps, and construction of a park-and-ride facility for a minimum of 200 vehicles near the interchange of State Route 60 and Interstate 215.
5. In cooperation with the Chamber of Commerce, implement procedures, to encourage commercial and industrial enterprises to locate within Moreno Valley.
6. Amend the subdivision ordinance as necessary to provide for the preservation of open space for future acquisition within a reasonable time.
7. Develop a community signing scheme for street corridors, public buildings and selected entrances to the community and its subcommunities.

8. Periodically review current traffic volumes and the actual pattern of urban development to coordinate, program, and as necessary revise road improvements.
9. Periodically reassess the policy statements of the Community Development Element as they relate to circulation and transportation, and accommodate adjustments as are necessary through the development of a five year priority, major street improvement program that implements transportation projects as demand occurs, or as future demand can realistically be projected.
10. Implement programs that mitigate on-street hazards for bicyclists wherever possible, and provide the facilities and traffic engineering as necessary to safely integrate bicycle operations into the circulation system.
11. Actively participate with the City Police Department in programs that educate the motorist and the bicyclist alike regarding their rights and responsibilities toward one another as users of public rights-of-way, and vigorously enforce existing laws as they relate to those rights and responsibilities.
12. As a function of the development review process, the city, in conjunction with Fire Department input, should evaluate the capability of the proposed water system to provide adequate fire flows, and ensure the adequacy of the proposed circulation system relative to emergency access.
13. Analyze the problem of sewerage those portions of the study area not easily served by gravity flow lines and develop specific policies for servicing these areas.
14. Review the Subdivision Ordinance to determine potential revisions that would more adequately address the construction of roads, bikeways, and drainage improvements, in accordance with the policies stated in the General Plan.

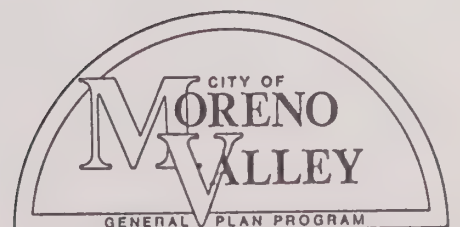
15. Conduct further studies of the available methods of financing drainage improvements (acreage fees), roads, sewer and water improvements (connection charges or assessment districts), etc.
16. Implement programs in support of the efforts of Rapid Transit District authorities toward the expansion of the existing bus system within the city and the provision of future public transportation consistent with the Riverside County Transit Plan.
17. Work with the Metropolitan Water District, Southern California Association of Governments, Eastern Municipal Water District, and other appropriate parties to prepare a water supply master plan which addresses both the availability of water supplies and requisite conveyance facilities to guide growth in the City of Moreno Valley.
18. Work with Eastern Municipal Water District, Edgemont Community Services District, the Santa Ana Regional Water Quality Control Board, and other appropriate parties to prepare a wastewater master plan which addresses needs for wastewater collection, treatment, and disposal systems, as well as the likely timing for facility improvements.
19. Conduct a detailed public facilities study, in the context of revised population projections and proposed land use characteristics of the General Plan.
20. Work with the County of Riverside and City of Perris to identify a future landfill site, and to ensure adequate landfill capacity to support planned growth within the two cities and their spheres of influence.
21. Renovate City-owned land and buildings located on Perris Blvd. for use as a City vehicle maintenance and equipment service facility in support of service oriented City administration.
22. Prioritize implementation of Phase II of Sunnymead Blvd. Specific Plan No. 204.

23. Concurrent with on-going maintenance programs implement the application of engineering techniques that take advantage of existing roadway capacities and improve the service and safety levels on those roadways.



## VI. THE HOUSING PROGRAM

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## VI. THE HOUSING ELEMENT

*[Amended per Resolution 91-64,  
adopted May 14, 1991, and  
Resolution 92-130, adopted  
December 8, 1992]*

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### A. INTRODUCTION

#### 1. PURPOSE

The State of California requires that every city must have an approved General Plan to guide its development activities. The plan must contain certain elements. The Housing Element became one of the required elements in 1969.

The Moreno Valley Housing Element is intended to provide citizens and public officials with an understanding of the housing needs of the community and to set forth an integrated set of policies and programs aimed at the attainment of defined goals. To attain the State mandated goal of providing decent housing in a satisfying environment, the Housing Element also promotes closer coordination of housing policies and programs at local, State and Federal levels realizing that the attainment of housing goals depends upon the shared commitment of all levels of government.

#### 2. LEGAL REQUIREMENTS OF HOUSING ELEMENT

State law passed in 1980 (AB 2853 - Roos Bill) describes the requirements for Housing Elements, the need to include an assessment of regional housing needs, the role of the California Department of Housing and Community Development (HCD) in the review of elements, and procedures and timing for the adoption of the Housing Element.

According to that law, this Housing Element must contain three parts: (1) an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of those needs; (2) a statement of the community's goals, quantified objectives and policies relative to the maintenance, improvement and development of housing; and (3) a program which sets forth a five-year schedule of actions to implement the policies and achieve the goals and objectives of the Housing Element, guided by the following State housing objectives:

- a. Provision of decent housing for all persons regardless of age, race, sex, marital status, source of income or other arbitrary factors;
- b. Provision of adequate housing by location, type, price and tenure; and

- c. Development of a balanced residential environment including access to jobs, community facilities, services.

Chapter 1140, Statutes of 1989, amends housing element law (Section 65583) (c) to require the housing program of an element to include, by January 1, 1990, a description of the use of moneys in a redevelopment agency's Low and Moderate Income Housing Fund if the locality has established a redevelopment project area pursuant to the community Redevelopment Law (Division 24 (commencing with Section 33000) of the Health and Safety Code).

### 3. RELATION TO OTHER ELEMENTS

The Housing Element is a basic policy document identifying present and future housing needs and establishing programs and implementation policies which ensure a good faith effort to meet such needs. Within the content of the General Plan, the Housing Element functions as an integral part of a comprehensive growth plan. For instance, projected housing need relates to residential land use acreages and policies which may be needed to accommodate the City's fair share of households within all income levels who might live in the City if market conditions made a variety of housing choices available.

The extent to which the Housing Element is effective depends therefore, upon the strength of the overall General Plan and to the degree to which the Plan is carefully followed. This Housing Element adds further strength to the General Plan without impairing such flexibility. It also brings the community into alignment with State and national efforts to provide a "decent home and suitable living environment for every American family," through this statement of local commitment.

The following mandated General Plan elements have been taken into consideration in conjunction with the Housing Element:

- Land Use
- Noise
- Circulation
- Open Space
- Conservation
- Safety

### 4. INFORMATION SOURCES

Because Moreno Valley was incorporated in December, 1984, well after the 1980 U.S. Census, other information sources have been relied upon whenever possible to provide accurate statistical information about population and housing. Updated information related to actual housing units, housing ownership and rental costs, household income and other factors have been

used to determine the current housing conditions. Primary sources of information for this Housing Element are the 1988 SCAG Regional Housing Needs Assessment, State Department of Finance yearly estimates, the Center for Continuing Study of the California Economy, State Data Center statistical information, the Moreno Valley Planning Department, and the 1989 Moreno Valley Household and Labor Force Analysis Survey, HCD and the Riverside County Department of Economic Development.

## 5. REVIEW OF STATE AND LOCAL HOUSING PLANS AND OBJECTIVES

California's State-wide Housing Plan, prepared in 1977, defines the five basic housing issues facing California:

- a. Existing neighborhoods and housing should be conserved and improved.
- b. The rising cost of new housing should be kept down.
- c. Adequate housing for low and moderate income households should be found, and each jurisdiction should meet its appropriate share of regional housing demand.
- d. Housing discrimination should be eliminated.
- e. Housing information should be available for both developers and consumers.

The State Housing Plan recognizes several important guiding principles, among which is the belief that the private sector is, and should be, the major provider of housing. The government's role is to do what it can to make the private market responsive to the needs of all income, age, race and ethnic groups and to help private industry provide a wide variety of housing types, sizes and prices.

In 1980, Assembly Bill 2853 (Chaptered as Government Code Section 65580 et. seq.) was approved by the State Legislature. Its purpose was to amend and add to Title 7 of the Government Code. The new legislation requires counties and cities to prepare substantially more detailed housing elements.

The Moreno Valley Housing Element has been prepared in compliance with these requirements to the extent that information was available. The Housing Element further supports the State objectives and attempts to address the basic housing issues within the Moreno Valley community with the inclusion of the following goals:



- a. To provide, to the extent possible, a decent house for every household within the community at a price/rent that is within affordability standards;
- b. To assure equal housing choices and opportunities for all households within Moreno Valley and to assure access to housing regardless of race, religion, ethnicity, sex, marital status or household composition;
- c. To allow freedom of access and choices for housing consumers in each and every submarket of the City; and
- d. To achieve the highest quality living standards throughout the City's housing inventory.
- e. The alleviation and prevention of homelessness.

## **B. HOUSING NEEDS ASSESSMENT**

### **1. POPULATION TRENDS AND CHARACTERISTICS**

As demonstrated in Table VI-A and discussed in the Community Development Element of the General Plan, the area included in the present City of Moreno Valley experienced a burst of rapid population growth in the 1950's which slowed in the 1960's and 1970's. Since 1980, population growth has been spectacular and unpredictable. After averaging 24.4% from 1980 to 1984, the average growth rate dropped to 15.7% from 1984 to 1986 and then averaged 19.3% from 1986 to 1988. The absolute growth rate from 1986 to 1988 doubled the 1984 to 1986 rate. Moreno Valley has been among the fastest growing medium sized cities (population 50,000 to 200,000) in the State since 1985.

Overall, population within the present Moreno Valley City limits increased by 1,395% between 1950 and 1988. By comparison, Riverside County's population increased by 456% during that period. The result is that Moreno Valley is now the second largest City within Riverside County. The City's proximity to the City of Riverside increasingly lends itself to consideration as the Riverside/Moreno Valley metropolitan area.

Since its incorporation in 1984, the City has been hard pressed to keep up with the increasing demand for public services and facilities. Although new development site dedications and developer fees have provided a major contribution toward filling community and City needs, the rapid expansion of private sector development and construction has often outpaced the systems currently in use. These problems are also magnified by the difficulty of making accurate long-range projections within the framework of unprecedented growth patterns.

**TABLE VI-A**  
**HISTORICAL POPULATION GROWTH**

<u>Year</u>	<u>CITY OF MORENO VALLEY</u>				<u>RIVERSIDE COUNTY</u>	
	<u>Pop.</u>	<u>% of Total County Pop.</u>	<u>Ave. Annual Growth</u>	<u>Ave. Annual Growth Rate %</u>	<u>Pop.</u>	<u>Ave. Annual Growth Rate %</u>
1950	6,067	3.6%			170,046	
1960	13,291	4.3%	722	11.9%	306,191	8.0%
1970	18,871	4.1%	558	4.2%	456,914	4.9%
1980	25,150	3.8%	628	3.3%	663,923	4.5%
1984	49,702	6.6%	6,138	24.4%	757,500	3.5%
1986	65,380	7.8%	7,839	15.7%	838,474	5.3%
1988	90,675	9.6%	12,648	19.3%	946,074	6.4%
1989	101,289	10.0%	10,614	11.7%	1,014,779	7.3%
1990	114,903	10.4%	13,614	13.4%	1,110,021	9.4%

Source: California Department of Finance.  
The Center for Continuing Study of the California Economy.

Population projections for the City of Moreno Valley are available from a number of sources, including the Southern California Association of Governments (SCAG), Urban Land Institute (ULI), and a number of individual marketing projections for Moreno Valley development projects. Year 2000 population projections for Moreno Valley run from a low of 132,580 to a high of 170,780 (see Table VI-B). SCAG Year 2010 population projections range from a low of 180,580 to a high of 247,780. Mid-range population projections, which are normally utilized for planning purposes, indicate a Year 2000 population of 151,680, and a Year 2010 population of 214,180. Thus, an average annual population increase of 4,960 people is projected between 1990 and 2010, twenty-five percent less than the 1980-1986 population growth rate of 6,705 persons per year. Recent growth rates indicate that true population growth will probably be at (and possibly exceed) the high-end projections.

By comparison, SCAG's (1987) Baseline Projection originally projected that in 2010 Moreno Valley will have a population of 163,091 (3,645 persons per year over the 1987 population of 79,700), which was, relative to the General Plan's projections, a significantly lower increase. However, the Baseline Projection was based on a straight line projection of 1970 to 1984 population growth and SCAG has since revised its projection for the year 2010 to 217,200 persons. As previously discussed, the major increase in population growth in Moreno Valley occurred after 1984. Actual population growth between 1986 and 1990 averaged 12,400 per year, bringing the 10-year average growth to 9,000 per year.

TABLE VI-B

## CITY OF MORENO VALLEY POPULATION PROJECTIONS

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YEAR	HISTORICAL POPULATION			
1950	6,067			
1960	13,291			
1970	18,871			
1980	25,150			
1984	49,702			
1986	65,380			
1987	79,700			
1988	90,675			
1989	101,289			
1990	114,903 (118,779 according to 1990 Census data)			
		<u>LOW-END PROJECTION</u>	<u>MID-RANGE PROJECTION</u>	<u>HIGH-END PROJECTION</u>
1990		84,580	89,180	93,780
1995		108,580	120,430	132,280
2000		132,580	151,680	170,780
2010		180,576	214,180	247,780

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Source: Southern California Association of Governments, Urban Land Institute, Economic Overview and Preliminary Land Use Market Analysis.



Physical, social, and market conditions presently affecting the City of Moreno Valley have changed dramatically in the past several years. As a result, the straight line projections of population trends from 1970 to 1984, as used in the SCAG 1987 Baseline Projection, undercount present and foreseeable growth trends. The completion of the Pomona Freeway, providing excellent regional access to the City; development of significant employment centers in Orange, Los Angeles, and more recently San Bernardino counties; rapidly increasing housing prices in Los Angeles and Orange counties; and a shift in development patterns from coastal to inland areas of Southern California have combined to accelerate growth rates in Moreno Valley and other areas of Riverside County far beyond 1970-1984 trends. The impact of these trends on area growth rates was not fully felt until after 1984.

In preparing population projections for Moreno Valley, the 1980-1986 period was determined to be more representative of future trends. By 1980, an inland shift of development trends was beginning to occur, freeways were in place, and Los Angeles and Orange County workers were finding it difficult to secure suitable housing which they could afford. Also, economic trends over the 1980-1986 period included two recession years with slow growth rates, two moderate years, and two very active years for development. This one-third/ one-third/one-third cycle was believed to be an adequate representation of future conditions. A projection of 1980-1986 trends yielded the 6,200 average annual increase utilized in the General Plan.

The projected average annual population growth rate of 6,200 persons per year is roughly consistent with the SCAG-82 Modified Growth Forecast. The portion of Moreno Valley generally north of Alessandro Boulevard is within Regional Statistical Area 46A, for which SCAG predicts an average annual population increase of 3,645. In addition, the residential areas located south of Alessandro are included in RSA 47. By applying a weighted average of RSA 46A and RSA 47 growth rates to Moreno Valley's 1984 population, it was determined that the average annual population increase included in SCAG-82 modified for the portions of Moreno Valley within RSA 46A and RSA 47 was 6,050.

As seen in Table VI-B, SCAG Baseline population projections made in 1987 were already being exceeded by 1988, and the excess seems to increase steadily. It appears that the population and housing supply will reach the lower levels predicted for 1995 during the calendar year 1990. Absolute population growth in 1987, 1988 and 1989 nearly doubled the predicted yearly average, but for long-range projections, the six-year/ one-third cycle may be expected to compensate for temporary anomalies such as the phenomenal population growth in 1987 and 1988. As long as housing supplies remain plentiful

and local prices stay relatively low compared to Orange and L.A. Counties, population growth can be expected to continue at an exceptional rate.

## 2. AGE OF POPULATION

The present age of City residents was estimated based on the 1980 age cohort analysis, and an analysis of in-migration to the City of Moreno Valley, and is presented in Table VI-C. As can be seen, the population of the City of Moreno Valley is young. The median age of Moreno Valley residents (28.1 yrs.) is significantly lower than that of the County (36.1 yrs.)

As identified in the age of population data presented Table VI-C, as well as in the data regarding the number of persons per household, young adults and families comprise a substantial portion of the population of Moreno Valley. An analysis of the changes in the age of population which occurred between 1980 and 1986 indicates that while the elderly comprise a smaller percentage of the City's population (7.5 Percent) than they do of the County's population (estimated at between 12.6% and 13.5% by Dept. of Aging and Census Data Center projections), the elderly sector of Moreno Valley's population is growing at a faster rate than the City's overall population.

In addition, the growth rate of children under the age of 11 was slightly higher than overall growth rates; however, the growth rate of adults between the age of 30 and 44 was significantly higher than the overall rate. It should be noted that while the number of households within Moreno Valley increased by 142.7 percent between 1980 and 1986, the number of families increased by 188.8 percent. This indicates the increasing family nature of the typical Moreno Valley resident, especially young families.

**TABLE VI-C**  
**CITY OF MORENO VALLEY**  
**ESTIMATED POPULATION CHARACTERISTICS:**  
**1980 and 1986**

	<u>1980</u> Number	<u>1986</u> Number	<u>Chg: 1980-1986</u> Number      %	
Population 25,515	65,380	40,230	160.0	
Pop.in Households	25,138	65,361	40,222	160.0
Households (Hh)	8,324	20,202	11,878	142.7
Families	6,543	18,896	12,353	188.8
Aver. Hh Size	3.02	3.24	0.22	7.1
Aver. Family Size	3.43	3.46	0.03	0.9

Age Distribution:

	<u>1980</u> Number      %		<u>1986</u> Number      %		<u>Chg: 1980-1986</u> Number      %	
0- 4 Yrs	2,439	9.7	6,473	9.9	4,033	165.3
5-11 Yrs	3,018	12.0	7,976	2.2	4,958	164.3
12-16 Yrs	2,213	8.8	5,230	8.0	3,017	136.3
17-21 Yrs	2,565	10.2	5,296	8.1	2,730	106.4
22-29 Yrs	4,326	17.2	10,068	15.4	5,743	132.8
30-44 Yrs	4,778	19.0	14,776	22.6	9,997	209.2
45-54 Yrs	2,314	9.2	5,950	9.1	3,636	157.1
55-64 Yrs	1,786	7.1	4,773	7.3	2,987	167.3
65+ Yrs	1,735	6.9	4,903	7.5	3,168	182.6

Source: 1980 Census; CACI Inc.

### 3. ETHNIC CHARACTERISTICS

The City of Moreno Valley contains two minority groups who together make up a significant portion of the City's population (see Table VI-D). According to the 1980 Census, and CACI, Inc., (demographic analysts) persons of Spanish origin make up approximately 14% of the City's population (although they may be categorized in other minority groups). Blacks are estimated to make up between 5.8 percent (CACI estimate) and 9.4 percent (Donnelly Demographics estimate) of Moreno Valley's population in 1989. The 1989 Household Survey resulted in a figure of 7.9% (about halfway between the two estimates).

**TABLE VI-D**  
**POPULATION BY RACE/ETHNIC BACKGROUND**

	Number Household	Percent 1986	1989 Survey
White	51,650	79.0%	77.2%
Black	5,753	8.8%	7.9%
Hispanic	---	---	10.2%
Native American	654	1.0%	.8%
Asian, Pacific Islander	1,961	3.0%	2.3%
Indian/Pakistani	---	---	1.4%
Other	5,361	8.2%	.2%
TOTAL	65,380	100.0%	100.0%
Spanish Origin*	8,303	12.7%	14.1%

\* Spanish Origin includes people who listed themselves in each of the other categories.

Source: 1980 Census, CACI Inc. (1986)  
1989 Moreno Valley Household and Labor Force Survey



#### 4. EMPLOYMENT CHARACTERISTICS

Until the 1970's, Moreno Valley employment and housing was characteristic of a rural/residential economy. Since 1980, the area has increasingly converted into a major suburban residential, community for the L.A./ Orange County metropolitan areas.

In 1984, the Riverside County Department of Development calculated that there were .26 jobs per capita in Moreno Valley. By including the 1,468 civilian jobs at the nearby March Air Force Base, the job ratio would have been .36 per capita, roughly equal to the county average. Although both the City and the County are making significant efforts to increase the number of local employment opportunities, Moreno Valley's phenomenal population growth has kept the ratio of jobs per capita within the City very low.

TABLE VI-E  
JOB TYPES OF MORENO VALLEY RESIDENTS

	Moreno Valley	Western Riverside County
Administrative	10%	13%
Administrative Support	9%	13%
Craft	5%	3%
Executive	3%	2%
Fabricator	1%	1%
Laborer	8%	8%
Owner/Operator	2%	5%
Precision Production	3%	3%
Professional	18%	18%
Repair	4%	3%
Sales	8%	8%
Service	13%	11%
Technical	10%	7%
Other	6%	5%

Source: Riverside County Department of Development, Western Riverside County, 1985-1986 Survey of Residents.



The most recent household and employment information is from the Moreno Valley Household and Labor Force Analysis completed in March, 1989, which can be compared with a similar survey of residents by the Riverside County Department of Development in 1985/86.

The scientifically conducted analysis found that 44% of all households had a single income in 1989, 35% had two wage-earners and 6.5% had three or more adult wage earners.

Reflective of the effort by Riverside County and Moreno Valley to increase the number of local jobs, there was a slight drop between 1986 and 1989 in the percentage of those commuting to work in the counties of Orange County (from 12% to 11%), Los Angeles (from 14% to 12%) and San Bernardino (from 15% to 10%). Concurrently, there has been a significant increase in the percentage of those working locally in Moreno Valley and surrounding Riverside County (from 54% to 66%). Although overall commuting has decreased as a percentage, Moreno Valley's population is growing so fast that the actual numbers of those who commute has increased. Among single-income earners there is a higher tendency to work in Orange or L. A. County, where wages are often higher. Among double-income families, the tendency swings the other way, with a higher proportion working at jobs in the Riverside/ Moreno Valley area. Females comprise a large percentage of the resident labor pool working at local jobs: 77% of all working females are employed in Riverside or Moreno Valley.

**TABLE VI-F**  
**JOB LOCATION OF MORENO VALLEY RESIDENTS**

Location	Jan. - 1986	March - 1989
Riverside County	54%	37.5%
City of Moreno Valley	*	28.8%
Los Angeles County	14%	11.8%
Orange County	12%	11.2%
San Bernardino County	15%	10.2%
San Diego County	3%	.8%
Other	2%	0%

\* No information available.

Source: Riverside County Department of Development, Western Riverside County, 1985-86  
Survey of Residents.  
Moreno Valley Labor Force and Household Analysis, March 1989.

According to the survey, the average commuting time for the 1989 resident labor force is 36 minutes. The average length of time that it takes a male to reach his job is 42.4 minutes; for a female, it is a significantly lower 27.6 minutes. Overall, commute times have improved for both sexes over the last three years, but still require 35% of the employees to spend over the average 36 minutes on the road, twice a day. Furthermore, 26% of all households contain at least one full-time employee who commutes more than one hour. The percentage of male employees commuting this distance is higher (29%) than the average (22%). Nine out of ten employees drive to work alone, with the tendency to car or van pool increasing only slightly among the commuters.

**TABLE VI-G**  
**ONE-WAY TRAVEL TIME TO WORK**

	1986	1989
Under 15 minutes	22%	32.1%
15 to 29 minutes	36%	23.3%
30 to 44 minutes	11%	16.7%
45 to 59 minutes	9%	6.8%
1 to 1.5 hours	15%	13.8%
Over 1.5 hours	7%	7.4%
<hr/>		
1989 Average:	42.40-Males	27.66-Females
1989 Median:	33.47-Males	19.30-Females
1989 Overall AVERAGE:	36.28 minutes	

Source: Moreno Valley Household and Labor Force Analysis, 1989.

## 5. HOUSEHOLD INCOME

As indicated in Tables VI-H and VI-I, the median income in Moreno Valley is above that of Riverside County, and is rising faster than the County average. Whereas Moreno Valley's median income was 4.8 percent greater than the County's in 1980, by 1986, Moreno Valley's median income was 14.6 percent greater than the County's. Within the next five years, it is projected that the median income of Moreno Valley residents will increase to 28.9 percent more than the Riverside County median.

Based on the household income data, it is estimated that, as of January 1986, 19.1 percent of Moreno Valley households (3,864) were within the Very Low Income category, defined as households having an income of less than 50 percent of the County median income (see Table VI-I). A total of 3,065 households (15.2 percent) were considered to be in the Low Income category, defined as households with incomes between 50 and 80 percent of the County median income. Over two-fifths of the City's households -- 44.6 percent (9,006 households) -- were in the upper income category, defined as households earning more than 120 percent of the County median income.

**TABLE VI-H**  
**MORENO VALLEY AND RIVERSIDE COUNTY**  
**HOUSEHOLD INCOME**

Income	1986		Estimated 1991	
	Number	%	Number	%
\$ 0 - 9,999	2,826	14.0%	3,543	11.7%
\$10,000 - 14,999	1,918	9.5%	2,513	8.3%
\$15,000 - 24,999	4,379	21.7%	5,693	18.8%
\$25,000 - 34,999	4,016	19.9%	5,511	18.2%
\$35,000 - 49,999	3,834	19.0%	6,238	20.6%
\$50,000 - 74,999	2,442	12.1%	4,481	14.8%
\$75,000 and up	787	3.9%	2,301	7.6%
Total	20,202	100.0%	30,280	100.0%

Median Income	1980	Estimated 1986	1991
Moreno Valley	\$16,800	\$27,424	\$31,154
Riverside County	\$16,037	\$23,932	\$24,170
Moreno Valley as percent of County	104.8%	114.6%	128.9%

Source: 1980 Census, CACI Incorporated



As shown in Tables VI-H and VI-I, household income is expected to increase faster in Moreno Valley over the next five years than it is County-wide. Thus, by 1991, the proportion of Very Low income households within Moreno Valley is expected to decrease from 19.1 percent to 15.6 percent, while the proportion of Upper income households increases from 44.6 percent to 49.3 percent.

**TABLE VI-I**  
**HOUSEHOLD INCOME**  
**DISTRIBUTION BY CATEGORY, 1986 AND 1991**

	<u>Estimated 1986</u>	<u>1991</u>	<u>Change 1986-1991</u>
Very Low (0% - 50% of County median)	3,864 19.1%	4,729 15.6%	865
Low (50% - 80% of County median)	3,065 15.2%	5,075 16.8%	2,010
Moderate (80% - 120% of County median)	4,267 21.1%	5,544 18.3%	1,277
Upper (Over 120% of County median)	9,006 44.6%	14,932 49.3%	5,926
Total	20,202	30,280	10,078

Source: 1980 Census: CACI Incorporated

By way of comparison, the 1989 Moreno Valley Household and Labor Force Analysis telephone survey of 1,500 households reported a much higher percentage of households earning less than \$15,000 and households earning more than \$50,000 than would be expected based on the previously cited 1980 census and CACI data. The median household income among those interviewed was \$37,800 (112% of the County median for a 4 person household). But 30.4% reported a household income of less than \$15,149 (45% of the County median income) and 32.5% reported a household income of more than \$50,000 (132% of the County median). Fifty- two percent of households with income over \$50,000 contain two or more full time employees. The results of the 1989 survey are included here in Table VI-J solely as an indication that some data extrapolated from the 1980 Census may be inaccurate due to the very high influx of new residents during the last decade. A clearer picture may be available when detailed information from the 1990 census is released.

TABLE VI-J

CURRENT HOUSEHOLD EARNINGS MARCH - 1989  
(PHONE SURVEY OF 1,500 HOUSEHOLDS)

\$ 0 - \$15,149	30.4%
\$15,150 - \$24,239	3.7%
\$24,240 - \$36,359	11.5%
\$36,360 - \$39,999	10.8%
\$40,000 - \$49,999	11.1%
\$50,000 - \$59,999	7.4%
\$60,000 - \$69,999	10.3%
\$70,000 - \$79,999	4.5%
\$80,000 and over	10.3%
	100.0%

Average HH Income	\$49,500
Median HH Income	\$37,800

\* Riverside Co. Median HH Income  
(4 person HH) \$33,800

Source: Moreno Valley Household and Labor Force Analysis, 1989, The Easton Group \*State  
Dept. of Housing and Community Development, 1990

## 6. HOUSEHOLD SIZE AND NUMBERS

According to the California Department of Finance, there were an estimated 20,202 households in Moreno Valley in 1986, an increase of 142.7% over 1980. As seen in the previously cited Table VI-C, the population in households increased by 160% during the same period, thus increasing the average household size from 3.02 to 3.24 persons. This compared with an average household size of 2.72 for Riverside County. The growth in household size is understandable in the light of the fact that the 30 to 44 year old group which is more likely to be raising a family is by far the fastest growing segment of the population, apparently attracted to Moreno Valley by the lower housing costs and suburban lifestyle. The number of families increased by 188.8% from 1980 to 1986. The fact that average family size in Moreno Valley increased by only 0.9% while average household size increased by 7.1% corresponds with the fact that families comprised 93.5% of households in 1986 but only 78.6% in 1980.

## 7. HOMEOWNER/RENTER

Information from the 1980 Census and CACI, Inc. indicates that in 1986, 64.3% of the 20,202 households in Moreno Valley owned their home, while 35.7% were renters. In the Household and Labor Force Analysis Survey conducted by telephone in March of 1989, 82% of the 1,500 randomly-selected interviewees owned their own home. (See Table VI-K)

TABLE VI-K  
HOUSING TENURE

	1986		1989	
	Number	%	Number	%
Total Housing Units	23,251	100.0%	32,173	100.0%
Total Occupied Units	20,202	86.9%	31,221	97.04%
Vacant	3,049	13.1%	952	2.96%
Owner Occupied	12,990	64.3%	(25,601*	82.0%)
Renter Occupied	7,212	35.7%	( 5,620*	18.0%)

Source: 1980 Census, California Department of Finance (\*1989 Household and Labor Force Analysis Survey statistics)

## 8. SPECIAL HOUSING NEEDS GROUPS

Population groups with special housing needs include handicapped persons, the elderly, large families, and farmworkers. In many instances, these groups have the additional problem of additional living expenses or financial burdens which reduce discretionary income and makes them less able to influence the supply of housing available in the marketplace to meet their specific needs. Other groups that may share their disadvantage in the housing market include female-headed households, the homeless and minority households. For this reason, the special needs of such groups (especially the lower income segments of these groups) are specifically addressed within the Moreno Valley Housing Element.

TABLE VI-L  
HOUSEHOLD CHARACTERISTICS

	1986 Number	1989 Number
Total Persons	65,380	101,289
Total in Households	65,361	101,270
Total Number of Households	20,202	31,221
Total Number of Families	18,896	NA
Persons per Household	3.235	3.244
Persons per Family	3.46	NA
Estimated Number of Households With:		
Five or More Persons	3,313	5,120
Female Head	4,343	6,712
Female Family Head	2,242	3,465
Handicapped Member	5,192	8,023

Source: 1980 Census, California Department of Finance Center for Continuing Study of the California Economy



## 9. HANDICAPPED PERSONS/HOUSEHOLDS

Questions regarding the total number of households with a handicapped member were not included in the 1980 Census. However, questions were asked to the 16 to 64 age group concerning work and transportation disabilities, and the 65 and older age group was asked questions regarding transportation disabilities. The County of Riverside used the 1978 Special Census in conjunction with the 1980 Census to determine the number of households with a handicapped member in preparing its 1984 Housing Element. Based on that analysis, it is estimated that as of January 1, 1989, there was a potential of 8,023 households (25.7 percent) within Moreno Valley which may contain one or more handicapped members. Records of the Federal Social Security Administration show that, in December 1988, a total of 675 disabled low-income persons with Moreno Valley zip codes received supplemental security income payments. They also listed 586 disabled persons on the Social Security roles for the same period (an undetermined number of these persons received payments from both programs).

Housing needs of households with handicapped members are generally related to affordability and access. Due to the generally limited income of this group, housing affordability is a major factor in the choice of housing, assuming that these persons are able to choose to live independently of extended households or group care facilities.

According to the State Department of Rehabilitation, the largest proportion of handicapped persons in Riverside County have a skeletal or muscular disability. Whether or not a handicapped person chooses to live independently, the physical accessibility of the dwelling is a major consideration in the adequacy of housing. Depending upon the type of disability, accessibility may entail access to the unit itself as in the case of persons in wheelchairs who may require ramps or other special facilities. Accessibility may also entail the placement of fixtures within a dwelling (such as light switches, faucets, restroom facilities, bathtubs, etc.) so as to facilitate use by disabled persons. It should be noted that fixtures can generally be retrofitted onto existing structures, although they can be installed at less cost during construction. In addition, it should be noted that many of the fixtures necessary for handicapped persons are similar to those required by the elderly who may also suffer from lack of mobility.

## 10. ELDERLY-HEADED HOUSEHOLDS

As indicated in Table VI-C, the Moreno Valley population age 65 and above increased from 1,735 (6.9%) in 1980 to 4,903 (7.5%) in 1986. Extending CACI's calculations to 1989 indicates that 7,900 persons in Moreno Valley (or 7.8% of the population)



are over 65 years of age. This compared with a county-wide ratio of approximately 13%. A further indication of the "aging" of Moreno Valley's population comes from responses to the 1989 Household and Labor Force Survey where 8.8% of household wage-earners were indicated to be 65 years or older.

Several assumptions and statistical data, including the 1989 Household and Labor Force Analysis, may be used to calculate the ratio of home ownership among seniors. During the three years from 1986 to 1989, the population percentage who had moved to Moreno Valley from Orange and Los Angeles Counties and from out-of-state increased dramatically while residents who had moved from Riverside County decreased. At the same time, the percentage of seniors increased slightly, and the percentage of home ownership increased from 64% to 82%. Although, beyond a certain age, limited-income seniors may be inclined to take equity out of home ownership and become renters, the various combined changes seem to indicate that many seniors are taking equity out of more costly homes in Orange and Los Angeles Counties and purchasing less expensive homes in Moreno Valley. It would seem safe to assume that the ratio of home ownership among seniors is as high or higher than that of the general population (i.e. 82% owners; 18% renters in 1989), indicating that 6,478 seniors live in their own home while 1,422 live in rented housing.

As indicated in the earlier discussion of the age of Moreno Valley population, elderly persons make up a small percentage of the City's population. Although information on the number of Moreno Valley households which are headed by elderly persons is somewhat difficult to reliably interpret from available data, the city-wide age breakdown would indicate that the number of elderly-headed households is similarly small. However, it should be noted that the number of elderly residents within Moreno Valley is increasing at a faster rate than the general population, and is expected to continue doing so in the future as the community matures. Persons approaching retirement age will continue to be attracted to live in Moreno Valley for some of the same reasons that attract young families - primarily lower housing costs and the suburban quality of life. Thus, housing for the elderly will become an increasingly important issue for Moreno Valley.

It is therefore important to understand that housing for the elderly is not only a process of physically building housing structures, but is also a social process. Special concerns of the elderly and factors which affect them need to be considered in project design and review. The more significant factors include:

- o Elderly people move less often than younger age groups. The dwelling unit, including rental units, should be conceived of as home, not as transient housing.

- o The elderly desire autonomy and an environment which extends and enhances the time span of independent living.

In order to enable the elderly to achieve this, they need convenient services, especially full service shopping and health care facilities, social service and activity centers and public transportation. The design of individual facilities must emphasize the elimination of the physical barriers that would otherwise impede access by the elderly.

- o The definition of the activity pattern for an elderly person should not be based on the assumption that the basic living activities are different from those of a younger person.
- o While security, safety and quiet are important, the elderly wish to be a part of the community. They should not be located on physically or socially isolated parcels.
- o The elderly are concerned about physical and psychological security to a greater degree than younger people.

Several specific factors of special concern at the community-wide or regional scale are related to the success of senior citizen housing. Major medical facilities should be available within 20 minutes driving radius and should be connected to housing sites by a public transportation system. This is not presently the case within most of Moreno Valley but will change with the recent completion of a hospital within the community. In addition, ambulance service must be available.

Opportunities for public involvement should also be available to elderly residents through existing facilities. Examples of such facilities include library, museum, churches, social services, community centers, historical society, YMCA, community parks, and similar facilities. These opportunities should be readily accessible for public transportation.

#### 11. LARGE FAMILIES/HOUSEHOLDS

According to the 1980 Census, approximately 16.4 percent of the households within Moreno Valley were considered "large households" having five or more members. Projecting 1980 data to 1989, it is estimated that 5,120 households had five or more members in 1989. Assuming consistent ownership and rental patterns, approximately 4,096 are homeowners (80%) and 1,024 (20%) are renters.

Housing needs of large families are generally related to affordability and the ability to find housing of sufficient size. Affordability can be assumed to be a factor in housing needs,



due to the higher proportion of income used by larger families for non-housing expenses (e.g. food, clothing, etc.) as compared to households of smaller size. Consequently, larger families have a smaller proportion of their income available for housing, with the result that affordability becomes a more significant factor in housing choice.

Due to the number of persons in a larger household, housing of sufficient space must be located in order to avoid overcrowding. Because housing aimed at households of typical size (two to four persons) predominates the market, larger households may experience difficulty locating housing of sufficient size. It should also be noted that larger-sized housing which could accommodate larger households is generally more costly, exacerbating affordability as a housing issue. Additional space in the form of bedrooms and bathrooms, without the added cost of amenities, is the primary need of limited-income larger households.

In the absence of other indications to the contrary, it is assumed that large families are equally likely to own their home as are other households.

## 12. FARMWORKERS

As discussed in the Moreno Valley General Plan, prior to the 1950's, the area which now makes up the City of Moreno Valley was primarily an agricultural community. Moreno Valley is part of Riverside County's "Alessandro District" which covers agricultural production throughout the western portion of the County. Production and value statistics are not available for Moreno Valley's share of the District's production; however, a 1986 Moreno Valley land-use survey found there to be 130 acres of grazing, 3,521 acres of dry farming (grains) 355 acres of productive citrus and avocado groves and an unspecified acreage of irrigated vegetable crops within the Moreno Valley and surrounding study area. In 1989, 532 acres of agricultural land within the Moreno Valley City limits were still taxed at their agricultural value under the Williamson Land Conservation Act of 1965. With the present development trend and increasing land values, much of the agricultural land in and around Moreno Valley will soon be taken out of production. The 532 acres of Williamson Act land was not renewed in 1987, essentially serving notice that it would be removed from Agricultural usage by 1996 or before.

In the 1980 Census, 6% of the population of Riverside County were listed as being employed in agriculture and forestry. We may safely assume that the absolute number of farmworkers in Moreno Valley has declined dramatically since 1980, and their percentage of the population even more so. It is estimated that less than 300 residents of Moreno Valley are categorized as farmworkers (about .3 percent). This conclusion

is reinforced by the extensive Western Riverside County Agricultural Worker Survey completed in August of 1989 for the Riverside County Housing Authority. Although it did not establish an absolute number of farm workers in the Moreno Valley Area, the study showed that due to the decrease in farmworkers and the small number of permanent and seasonal farmworkers in the Riverside Metro Area (Study Area #1) which included Moreno Valley, this area had the least imbalance of worker housing of the six areas in western Riverside County. The study also showed that the decrease in farmworker population will continue with as much as 50% of current agricultural land to be taken out of production over the next five years.

### 13. FEMALE HEADED HOUSEHOLDS

Based on the 1980 Census and data from the Department of Finance, there were 6,712 female-headed households in Moreno Valley in 1989. The special housing needs of female-headed households are generally related to affordability since such households generally have lower income than the average household. Of the female-headed households, 3,465 were families headed by a single woman, indicating a need for affordable local child care facilities and services as well as affordable housing. The County Department of Public Social Services reports that 5,446 single-parent families from Moreno Valley received some type of welfare assistance in 1989.

### 14. HOMELESS/EMERGENCY SHELTER NEEDS

The most serious housing problems in the state are those of persons who have no home at all, the homeless. There are many definitions of homelessness. One of the most widely accepted is "a person who is unable to maintain a residence of their own." This includes people in homeless shelters as well as those living without any shelter. Homelessness may be a temporary, short-term or a long term situation. A 1987 report by the Health and Welfare Agency estimated the statewide homeless population to be approximately 100,000; not including an estimated 46,000 undocumented workers. The County and Department of Community Action estimates 3,000 people are homeless in Riverside County.

California's homeless problem is exacerbated by the shortage of affordable rental units and low cost housing that has not kept pace with population increases. Affordable is defined by HCD as equivalent to 25 percent of a household's income although contemporary opinion (and federal programs) allow up to 30% or more. It is estimated that 10 percent of the population is at "risk" of becoming homeless because of over-extension of debt. Others that are at risk are those who are doubling up with

friends or family, motel populations with limited stay, and recipients of Aid to Families with Dependent Children (AFDC) whose stipend has been canceled twice within one year because there was no forwarding address.

A Legislative Analyst's report indicates that there are four major factors that have contributed to an increase in the State's homeless population. These changes have been summarized as follows:

- ° There has been an increase in the number of people in California having incomes below the federal poverty income guidelines.
- ° The cost of housing, even that which is relatively low and moderate cost, has out-paced income. Increased rent has in some cases pushed poor people out of their permanent housing.
- ° There is a lack of availability of low-cost housing units. Many single-room occupancy hotels which provided inexpensive shelter have been destroyed during redevelopment projects.
- ° Family break-ups are more prevalent, sometimes leading to homelessness.

The homeless problem will not go away unless low-cost affordable housing is provided. Homelessness requires a three-tiered approach. First, emergency shelters must be available for the immediate and temporary needs of the homeless. Second, transitional housing is needed to provide stability until the person or family gets "back on its feet." Lastly, the provision of low-cost affordable housing must be encouraged if the homeless problem is to be solved.

Although Moreno Valley's unique growth and population patterns have, until recently, deferred and obscured local occurrence of homelessness, the state and county have always had homeless. In recent years the characteristics have been changing. The stereotypical alcohol or drug addicted, transient male is no longer the only type of homeless person. A rapidly growing group consists of physically and mentally handicapped, single women, families with children, the elderly and single males. The reasons for homelessness are as diverse as the group. They might include families who have had a financial setback, runaway youths, women and children escaping an abusive or violent home environment, or the unemployed. It is estimated that 60 percent of the overall homeless population consists of single persons and 40 percent consists of families.



The homeless that are single tend to be more mobile than families who generally stay longer in the area in which they became homeless. When the risk or the reality of becoming HH homeless arises, newly-arrived persons or families find it easier to move back to former locations or to new locations than do more settled residents.

In early 1990, the Moreno Valley Office of Public Safety conducted an extensive study of the homelessness situation in Moreno Valley, including information from Riverside County Community Action Agency, Homeless Services, the Moreno Valley Police Department, Parks and Maintenance, Senior Center and Library as well as a number of local non-profit social service agencies. From the survey conducted, it was concluded that Moreno Valley contained less than 30 long-term homeless during the winter months, with the possibility of an increased number of transient homeless during the warmer months. The Sunnymead Park and Postal Avenue areas seem to be the areas of most obvious concentration of Moreno Valley's homeless, although homeless individuals and families are occasionally found to utilize JFK Park, public parking lots, abandoned buildings on Sunnymead Boulevard, the alleyways behind Alessandro Boulevard near Highway 215, and the City's wildland areas.

The Fairmont Park Armory in Riverside is used by the County Homeless Shelter Program run by the Community Action Agency to provide emergency homeless shelter for the Riverside/Moreno Valley area during the coldest months. Of the 3,117 bed-nights provided in January of 1990; 78.5% were males, 17% were females and 4.7% were children. No breakdown is available as to the percentage originating in Moreno Valley. The program expects to house an average of 120 persons per night during the winter months.

Other facilities located in Riverside that provide homeless shelter to persons from Moreno Valley include:

- ° The New Life Shelter (52 beds, expects to have 100 beds by 1991, single men only; nightly basis; estimates that less than 5% of the clients come from Moreno Valley; experienced 60 to 80 bed shortfall during the coldest nights of 1989, but has excess capacity in summer).
- ° The Genesis Shelter (40 beds plus 32 to be added in 1990; families and single women on a weekly basis, up to 2 months; serves about 400 individuals per year with approximately 10% from Moreno Valley; estimates that a total of 200 to 350 beds would be needed to satisfy all of its current requests for assistance).

- ° I Care Shelter (capacity of 30 to 40; persons, families and single women only, for up to 60 days; provided 1,600 shelter/nights to Moreno Valley homeless in 1989).

Based on a simple analysis of the previous information and interviews with homeless services and shelter providers, it appears that instances of homelessness in Moreno Valley may involve 100 or more persons per year, with more than half of these being families and single women. The most critical year-round need regionally seems to be for emergency and transitional housing for families and women, with the need for emergency shelter for single males being seasonally weighted to the winter months. This analysis fits with other housing element data which indicates a high percentage of families and female-headed households and a predominance of single-family, owner-occupied dwellings in the housing supply.

To meet this relatively low current level of need, the most efficient immediate program is for the City of Moreno Valley to continue to support the maintenance and expansion of regional service facilities now operating in nearby locations and to initiate a program to mitigate any lack of public transportation connecting Moreno Valley with homeless shelter locations.

On a longer term, Moreno Valley can expect to experience an increasing number of homeless of all types as the City becomes more urban in nature and public transportation improves; as the population increases with its concurrent increase in domestic strife and family economic reversals; as the percentage of low-income-affordable and smaller dwelling units is reduced; and as older affordable units are removed from the housing supply. Local shelter providers indicate that Moreno Valley exhibits a higher-than-average occurrence of families as a percentage of the homeless population. Families with children are less mobile than single adults (especially single males) and thus are more likely to require assistance in the local community when homelessness does occur. Combined with the current regional unmet demand for transitional family shelter, this anticipated need should receive a high priority in the development of future homeless facilities in Moreno Valley.

At the current level of demand, the continued support of shelter operations that are already functioning is the most effective and efficient use of the City's resources. At the same time the City needs to begin to work toward a unified coordination of homeless services, and analysis of the types of homelessness encountered, in preparation for the creation of a shelter in Moreno Valley.

## 15. MILITARY PERSONNEL

In 1989, approximately 4,100 military personnel (plus approximately 5,100 dependents) were stationed at March Air Force Base, located between the cities of Moreno Valley, Riverside and Perris. The Base Housing Office estimates that 1,150 military families plus 550 single personnel are housed in the surrounding communities (mostly in Moreno Valley, with lesser numbers in Perris and Riverside). An Air Force study in January 1990, demonstrated that the base needed 2,200 units of affordable family housing, beyond what is currently available on-base. Airmen who live off-base receive additional pay to aid them in paying for housing; the amount of money they receive depends on rank. In addition, because of the high cost of housing in Riverside County compared to national averages, airmen residing off-base also receive a "Variable Housing Allowance".

Married personnel below the rank of E-4 (with less than two years of service) are not eligible for on-base housing. They and other families living off-base must seek housing in neighboring communities which is within their budget and suits their needs. Very few military families have sufficient incomes to afford to purchase housing in this area. Those that can afford housing are mostly senior officers and those nearing retirement. Consequently, most military families are renters. Low military pay scales, even when supplemented by housing allowances, make it difficult for lower-rank military families to easily afford even local rental rates. Changes in the national budget may mandate the relocation of a number of Air Force Space and Missile operations from L.A. and Norton Air Bases to March AFB. This could entail the relocation of as many as 7,000 to 8,000 jobs involving 2,000 military personnel. Although the Base Housing Office plans to construct new on-base housing, there would be a greater need for off-base housing that is affordable to lower ranking personnel, if the move is made.





## C. HOUSING STOCK CHARACTERISTICS

A primary task of the Housing Element involves evaluating the present housing supply in terms of its ability to meet the needs of the community. State Law requires that the housing supply must be assessed by type and tenure of units, housing stock conditions, vacancy rates and overcrowding.

### 1. TOTAL HOUSING STOCK QUANTITY AND TYPE

As shown in Table VI-M, the housing stock in Moreno Valley is very heavily dominated by single family detached units, the stock of which has continued to increase at a faster rate than other types of housing. According to the California Department of Finance, there were 23,251 housing units within the City of Moreno Valley as of January 1, 1986 and 32,173 units as of January 1, 1989. 84.5% of these units were single family detached (27,191) and an additional 1.6% (499 units) of the total were attached single family units. Mobile homes made up 3.4% of the housing stock (1,182 units).

The proportion of attached multi-family housing in 1989 (10.3%) is lower than it was in 1980 (18.8%). It is also much lower than the proportion of multi-family units county-wide (21%). The increasing proportion of single family units is reflective of the market demand driven by the large number of young families, seniors, and working adults within 12 years of retirement from Los Angeles and Orange Counties seeking to purchase less expensive housing in Moreno Valley.



**TABLE VI-M**  
**HOUSING STOCK**

	<u>Jan. 1986</u>	<u>%</u>	<u>Jan. 1989</u>	<u>%</u>
Total Units	23,251	100.0%	32,173	100.0%
Occupied	20,202	86.9%	31,221	97.0%
Vacancy rate		13.1%		3.0%
Single-Family	19,474	83.8%	27,690	86.1%
Attached	499	2.1%	499	1.6%
Detached	18,975	81.6%	27,191	84.5%
Multi-Family	2,689	11.6%	3,301	10.3%
2 to 4 Units	1,078	4.6%	1,098	3.4%
5 Plus Units	1,611	6.9%	2,203	6.8%
Mobile Homes	1,088	4.7%	1,182	3.4%

Source: California Department of Finance

Housing Stock Additions 1-1-89 to 1-1-90

	<u>Jan. 1</u>	<u>Added</u>	<u>Dec. 31</u>
Single Family	27,690	2,927	30,617
Multi-Family	3,301	27	3,328
Mobile Homes	1,088	96	1,184

Source: Moreno Valley Planning Dept.

The increase in the housing stock between January 1, 1986 and January 1, 1989 represents a total increase of 38.4% (or an average annual increase of 2,974 units per year).

The City's total housing stock as of January 1, 1989 consisted of 32,173 residential dwelling units, 27,191, (84.5%) of which were single-family detached units. Mobile homes represented 1,126 units, or 3.4% of the total housing stock (down from 4.7% in 1986). Multi-family units dropped from 11.6% to 10.3% of the housing stock during the same 3 years, although the absolute number increased by 612 units. An important recent trend in the Moreno Valley housing market which goes hand-in-hand with the increased construction of single-family detached dwelling units is its expansion into the move-up market. Housing within the Sunnymead Ranch and Moreno Valley Ranch planned communities, as well as numerous tracts along the north side of Ironwood and large-lot tracts in the eastern portion of the City, generally feature larger homes with greater amenity packages than were offered in housing tracts earlier in the 1980's. This trend is also reflected in the fact that the average value of building permits for new residential construction is higher than the county average.

TABLE IV-N

CITY OF MORENO VALLEY RESIDENTIAL BUILDING (PERMITS) ACTIVITY  
(January 1986 through September 1988)

Building Type	1986 Number	1987 Number	Jan 1988- Sept 1988 Number
New Single Family (1)	3,824	2,082	2,602
Multi Family	388	224	524
Total	4,212	2,306	3,126
(1) Includes Mobile Homes			

Source: City of Moreno Valley Building Department, Security Pacific Corporation, and Riverside County Department of Development.

## 2. HOUSING TENURE

As discussed under Population Profile (Table VI-K), there is strong indication that the percentage of owner-occupied units has risen dramatically in recent years. In 1986, the Department of Finance estimated that 64.3% of units were owner occupied; CACI's 1988 Sourcebook shows nearly 73% of units as owner-occupied; and information from the 1989 Moreno Valley Household and Labor Force Analysis Survey indicates that approximately 82% of City households (who have a telephone) live in their own home. This trend would tend to correspond to the higher percentages of single family detached housing being constructed in recent years (Table VI-M).

## 3. VACANCY RATES

Generally, a vacancy rate of 4 to 6 percent is considered ideal. A lower vacancy rate usually indicates a constrained market in which housing cannot or is not being produced in sufficient quantities to meet demand and is an indication that adequate housing choice is not available in the community. A vacancy rate in excess of 6 percent can occur for several reasons. High vacancy rates generally indicate that: 1) housing is being over-produced, 2) a significant portion of a community's housing is in seasonal units, or 3) that the community is suffering from economic distress.

As demonstrated in Table VI-M, the estimated vacancy rate of Moreno Valley housing has fallen dramatically from 13.1% in 1986 to 3.0% in 1989. Moreno Valley's high vacancy rate in 1986 (13.1%), however, was indicative of the large number of new dwelling units which were completed, or sold, but which were not yet occupied. This is not unusual for rapidly growing communities such as Moreno Valley. A review of 1980 and 1985 housing data identified vacancy rates as being 11.3% and 12.8% respectively. The much lower current rate estimate by the California Department of Finance is also reflected in the 1988 SCAG Regional Housing Needs Assessment which lists the Moreno Valley vacancy rate as (2.8%), and the Housing Vacancy Survey of Riverside- San Bernardino Counties conducted in May 1988 by the Federal Home Loan Bank of San Francisco (2.5% vacancy rate, plus units under construction).

## 4. SUBSTANDARD AND UNSOUND UNITS

Due to the relatively low-age of most of the City's housing stock, unsound housing (those dwelling units in need of replacement or repair), is relatively minor housing problem in Moreno Valley. The 1978 Riverside County Special Census, 1980 Federal Census, the 1984 Riverside County Housing Element, and brief windshield surveys were used to estimate the number of unsound units within the City of Moreno Valley.



The 1978 Special Census defined a unit as deteriorated if one or more of the following conditions exist:

- o Lack of electrical service;
- o Lack of plumbing facilities;
- o Lack of heating, cooling, or insulation;
- o Lack of kitchen or bathroom facilities;
- o Lack of maintenance (i.e. leaky roof, broken windows etc.)

Based on the 1978 Riverside County Special Census, 1980 Federal Census, and the 1984 Riverside County Housing Element, it is estimated that 94.8 % of the existing housing units within the City of Moreno Valley were of sound condition in 1986. An estimated 1,205 units were therefore in need of replacement or repair.

Based on County-wide data, 64.8% (781 units) of unsound units should be suitable for rehabilitation, and the remaining 424 units were in need of replacement.

The age of housing in the City is an important characteristic of the housing stock because it indicates the relative condition of housing. Many Federal and State programs use age of housing to determine housing needs and the availability of funds for housing and/or community development. For those purposes the most significant measure of the age of housing is the number of units built before 1960. The design life for major components of an average quality housing structure ranges from 20 to 30 years for such items as roofing, plumbing, paving and electrical. The replacement or major refurbishment of such components within the above time-frame normally should be undertaken in order to maintain a decent and safe place to live. In contrast, housing units less than 20 years of age are not likely to require major rehabilitation improvements.

From available historic growth data, it is clear that less than 4,200 housing structures existed in the Moreno Valley district in 1960, with approximately 1900 units built before 1950. Considering the probability of replacement of the oldest units over the past 30 years, it is apparent that well under 4,000 units of the current housing stock is likely to be 30 years old or older. The current population boom should help provide motivation for the renovation of older units, although the highly competitive new-housing market may reduce the overall effect.

## 5. OVERCROWDING

Overcrowding is a measurement of the adequacy of dwellings to accommodate residents. The basic standard used to determine overcrowding is that the number of persons per room within a unit should be 1.00 or less. Housing with an occupancy of 1.01 to 1.50 persons per room is considered to be slightly over-crowded, while housing with 1.51 person per room or more is considered to be severely overcrowded.

In many cities, overcrowding has occurred in an effort by low-income residents to reduce housing costs. This has resulted in impact to city services and the general quality of life.

As discussed under Population Characteristics and Trends, the average number of persons per household increased from 3.02 to 3.24 between 1980 and 1989 and is considerably higher than the county average of 2.76 persons per household. This increase is consistent with the concurrent increase in the ratio of families to households (Table VI-C). Although the ratio of senior citizens (who generally have fewer persons per household) has increased from 6.9% to 7.8%, it is more than balanced by the increase in families.

The 1980 Census identified 94.6% of the City area's housing as not being overcrowded. This figure shows no change from the 1970 Census. Data regarding the breakdown of those overcrowded units within Moreno Valley relative to severity of overcrowding is not available. A linear projection of 1980 data to 1989 would indicate that 1,686 dwelling units within the City of Moreno Valley are presently overcrowded. However, the increased production of larger single-family dwellings in the last decade and the fact that Moreno Valley's median income is higher than the County average and continuing to increase, leads to the conclusion that overcrowding is considerably less common than indicated by the 1980 Census. Where overcrowding does occur in Moreno Valley, it is more likely to be a result of low income and/ or unusually large family size in combination with the limited availability of rental units. Overcrowded households normally include a high percentage of low-income and single-parent families.

Based on this information, it is estimated that 1,200 dwelling units within the City of Moreno Valley may presently be overcrowded. In the absence of statistical data to the contrary, it seems likely that these overcrowded households are more apt to be renters than is the general population, perhaps even reversing the 80% to 20% ownership ratio of the City. For purposes of calculation, it is arbitrarily assumed that 70% of overcrowded households in Moreno Valley are renters.



## 6. HOUSING AFFORDABILITY/OVERPAYMENT

Housing affordability relates the required outlay of income for housing relative to household or family income. The required cost for owning or renting a dwelling is determined by the availability, selection and price of housing in the market place. The relationship between cost and income provides a benchmark for determining future housing needs.

Traditionally, Moreno Valley has been known for its relatively affordable prices. In fact, housing value is most often cited as an important factor in Moreno Valley residents' decision to move into the area. Moreno Valley housing values are evident not only at the lower end of the market, but also in its move-up housing market.

Prices for both new and existing housing units within Moreno Valley fall into a broad range, depending on age, condition, and location. The price and market for housing is generally divided between the developed northern and southern portions of the city area along the Moreno Valley Freeway (Highway 60), according to local real estate professionals.

Housing in the northern portion of the city has been selling for higher prices than in the southern portion. This is generally because the dwellings north of the freeway tend to be larger, and because the northern portion of the city is elevated above the valley, providing greater opportunities for view lots. Another influence on the difference in housing prices is increased cost of construction in the rocky portions of the hillside areas north of the freeway.

The differences in housing price are clearly discernible in the average resale price for homes in each area. According to Moreno Valley real estate professionals, based on recent resale activity, the average three- to ten-year-old home in the southern portion of the City sells for between \$75,000 and \$90,000. By comparison, homes in the northern portion of the City sell for up to \$125,000 to \$175,000. In the first half of 1990, the average selling price of new houses has been \$170,000.

The rising median income indicates that many new households are well above the County and City median and thus have increased chances of avoiding overpayment. There may, however, be an increased incidence of overpayment-by-choice if new arrivals choose to purchase housing that is beyond their current means in anticipation of future increases in household income and future inflation. In the case of a local or national recession, these households could experience considerable hardship in maintaining their housing payments and ownership.

**TABLE VI-O**  
**HOUSEHOLDS ABLE TO PURCHASE HOUSING**

Price of Home	Approx Annual Housing Payments Required(1)	Approximate Required Income To Qualify(2)	% of Moreno Valley Households with Required Income(3)
\$ 75,000	\$ 701/Mo \$ 8,417/Annual	\$25,251	66%
\$ 90,000	\$ 842/Mo \$10,107/Annual	\$33,690	57%
\$100,000	\$ 898/Mo \$ 10,780/Annual	\$35,933	38%
\$125,000	\$ 1170/Mo \$14,037/Annual	\$46,792	28%
\$150,000	\$ 1,409/Mo \$16,905/Annual	\$56,350	25%

(1)- Assumes 10% down, 10% interest, 30 year term; includes property taxes calculated at 1% of property value, insurance at 1% of structure value (75% of property value).

(2)- Assumes housing payments are 30% of annual income.

(3)- Based on Household and Labor Force Analysis Survey, 1989.

As of March 1990, rental costs of recently completed units in Moreno Valley range from \$460 to \$555 per month for a one-bedroom to \$560 to \$695 per month for a two-bedroom apartment or \$775 to \$900 per month for a three-bedroom house. Rents are estimated to have increased 7% per year during the last 2 years (Easton Group study).

The Southern California Association of Governments (SCAG) uses 30% of household income as the standard maximum that should be for housing in order to avoid overpayment.

Approximately 34.1% of Moreno Valley households earn less than 80% of the County median income (extrapolated at \$32,100 for the average 3.46 person Moreno Valley family, 80% = \$25,700). These lower- income households are the most impacted by higher housing costs.

Income /Rental Gaps	Maximum Low-Income	Maximum Very Low-Income
Annual HH earnings (3.46 Persons)	\$25,700	\$16,050
Maximum monthly income	\$ 2,142	\$ 1,337
Housing Allowance 30%	\$ 642	\$ 401
Type of Unit	2 Bdr. Apt.	2 Bdr. Apt
Average Rent & Utilities (3.46 persons)	\$ 785	\$ 785
Affordability Gap	\$ 143	\$ 384
Percent of Income Paid for housing	<u>36.6%</u>	<u>58.7%</u>
Percent overpayment	6.6% over	28.7% over

By way of comparison, an individual earning \$8.00 per hour would earn \$1,376 per month and pay approximately \$400 to \$600 in rent and utilities for a studio or one-bedroom apartment, resulting an overpayment of between 0% and 13.6%.

Lower-income, single parent households are the most likely group to experience overpayment for housing. These households are more likely to be renters and to have a female family head. The County Department of Public Social Services 1989 welfare roles indicate that 5,446 single-parent families with a Moreno Valley zip- code received some type of assistance in 1989.

The distribution of very low to upper-income households is determined based upon the median- income level of the region or County. The household income classification displayed in Tables VI-H and VI-I (reprinted below) is used to determine income distribution within Moreno Valley and the County.

**TABLE VI-H**  
**MORENO VALLEY AND RIVERSIDE COUNTY**  
**HOUSEHOLD INCOME**

Household Income	1986		Estimated 1991	
	Number	%	Number	%
\$ 0 - 9,999	2,826	14.0%	3,543	11.7%
\$10,000 - 14,999	1,918	9.5%	2,513	8.3%
\$15,000 - 24,999	4,379	21.7%	5,693	18.8%
\$25,000 - 34,999	4,016	19.9%	5,511	18.2%
\$35,000 - 49,999	3,834	19.0%	6,238	20.6%
\$50,000 - 74,999	2,442	12.1%	4,481	14.8%
\$75,000 and up	787	3.9%	2,301	7.6%
Total	20,202	100.0%	30,280	100.0%
Median Income	1980	1986	1991	
Moreno Valley	\$16,800	\$27,424	\$31,154	
Riverside County	\$16,037	\$23,932	\$24,170	
Moreno Valley as percent of County	104.8%	114.6%	128.9%	

Source: 1980 Census, CACI Incorporated



**TABLE VI-I**  
**INCOME DISTRIBUTION BY CATEGORY, 1986 AND 1991**

	<u>1986</u>	<u>1991</u>	<u>Estimated</u> <u>1986-1991</u>
Very Low (0% - 50% of County median)	3,864 19.1%	4,729 15.6%	865
Low (50% - 80% of County median)	3,065 15.2%	5,075 16.8%	2,010
Moderate (80%-120% of County median)	4,267 21.1%	5,544 18.3%	1,277
Upper (Over 120% of County median)	9,006 44.6%	14,932 49.3%	5,926
Total	20,202	30,280	10,078

Source: 1980 Census: CACI Incorporated

The California Department of Housing and Community Development (HCD) has stated that overpayment for housing is the most widespread housing problem in the State. Overpayment is also a significant concern in Riverside County and in Moreno Valley.

Table VI-P identifies the number of low and very low income households in Moreno Valley estimated to be paying more than 30% of their gross income for housing. This table is based on 1980 Census data updated to 1989.



**TABLE VI-P**  
**HOUSING OVERPAYMENT BY VERY LOW AND LOW**  
**INCOME HOUSEHOLDS IN 1989**

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Lower Income Households Overpaying for Housing	6,612	
1. Total Very Low Income	4,353	
2. Total Low Income	2,259	
3. Total Renter Households	3,193	
Very Low Income		2,558
Low Income		635
4. Total Owner Households	3,419	
Very Low Income		1,795
Low Income		1,624

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Source: Southern California Association of Government, Riverside County,  
based on 1980 Census Data.

As previously discussed, the high median income of new Moreno Valley households in combination with extremely competitive new home developers and the availability of resale homes in the under \$100,000 price range and the high percentage of owners versus renters makes overpayment less of a problem in Moreno Valley than in many other cities.

## 7. AFFORDABLE UNITS AT RISK OF CONVERSION

*[Amended by Resolution 92-130, adopted December 8, 1992]*

### a. Introduction

Government Code Section 65583(a)(8) requires that cities and counties include analyses and programs to address the potential conversion of affordable units in assisted housing developments during a ten (10) year planning period. The planning period corresponds with the five (5) year planning period of the 1989 Housing Element (July 1, 1989 through June 30, 1994) and an additional five years (July 1, 1994 through June 30, 1999). State law requires that the analyses and programs be adopted as part of the Housing Element and that the following be included:

- ▶ An inventory of developments which are eligible to change to market rate housing due to termination of subsidy contracts, mortgage prepayments, or expiring use restrictions.
- ▶ An estimate of the total cost to replace the at risk units with units comparable in size and rent levels.
- ▶ A list of public and private nonprofit corporations which have legal and managerial capacity to acquire and manage the developments.
- ▶ A list of federal, state and local financing and subsidy programs which can be used to preserve the assisted housing developments.
- ▶ Quantified objectives and policies for the preservation of at risk units.
- ▶ Programs to preserve at risk units.

Assisted housing developments include multifamily rental units financed with state and local multifamily revenue bonds, local redevelopment funds, Community Development Block Grant funds, local in-lieu fees and units built under the state density bonus program.

## **b. Inventory**

The inventory of at risk units in Moreno Valley consists of mortgage revenue bond projects with use restrictions that expire over the next three to seven years. The inventory of affected units is presented in Table IV-P-1.

The developments listed in Table IV-P-1 have set aside 20% of the units for households at 80% and 120% of median income. Of the five developments, only one (Mountain View Apartments) is required to maintain rents affordable to lower income households (80% of median). The regulatory agreements for the other developments only require that 20% of the units be leased or rented, or made available for lease or rental to lower income households. However, the agreements do not specify that the rent levels must be maintained as affordable.

An affordable rent, whereby a lower income household pays no more than 30% of its income for a two bedroom unit, is \$684. The rental market in Moreno Valley is such that market rents range from \$350 for a one bedroom apartment to \$700 for a three bedroom. Per the 1990 census, median gross rent in Moreno Valley was \$675, this includes single family units as well as apartments. Furthermore, the census reports that, based on median gross rent, households in Moreno Valley pay an average of 30.5% of their income to rent. Consequently, lower income households can rent a market rate unit at an affordable rent. However, very low (50% of median) and low income (60% of median) households cannot afford the median two bedroom unit without paying in excess of 30% of their income. An affordable two bedroom rent for a very low income household is \$428 and \$513 for a low income household.

Sources To determine if there were units at risk of conversion in the city, several sources were examined. With regard to federally subsidized or financed projects, on September 1, 1992 staff contacted Gary Collard at the State Department of Housing and Urban Development to confirm that there were no developments in Moreno Valley listed in the 1991 Update of the Inventory of Federally Subsidized Low-Income Rental Units at Risk of Conversion.

Staff also contacted the Riverside County Housing Authority. The Housing Authority issued four multi-family revenue bonds for projects built in Moreno Valley. The Housing Authority also monitors those developments for ongoing compliance. Another source utilized was the County Administrative Center which acts as intermediary for the City in issuing multi-family revenue bonds. The City of Moreno Valley Redevelopment Agency also was a source used to determine whether the city, through the Agency, had provided assistance



which required that units be set aside as affordable. Regulatory agreements were requested from the Housing Authority and County Administrative Center and reviewed by staff.

Projects As previously noted, the Mountain View Apartments is the only development that must maintain rents on 20% of the units at levels not to exceed 30% of income for lower income households. The Mountain View Apartments were built using proceeds of a \$6,000,000 multi-family revenue bond. The bonds were issued in 1985 by the Riverside County Housing Authority. The project was built in 1988. The restrictions on the 20% set aside units expire in 1998.

The other four projects were also financed with multi-family bond proceeds. However, the bonds for these projects were issued prior to 1986 and were not required to set affordable rents base based on 30% of a households income. The projects were merely required to lease or make the units available for lease to lower income households. Consequently, the remaining 229 set aside units are not at risk of converting from affordable to market rate housing since these units were never rent restricted.

Risk of Conversion It is likely that in 1998, the owner of the Mountain View Apartments will opt to let the rent restrictions on the twenty-eight affordable units expire. The set aside units require additional paperwork to confirm that tenants meet the income eligibility guidelines and the income information has to be updated annually. If in 1998, the owners can achieve the same or higher rents for set aside units as market rate units, and they do not have to collect income documentation, it would be in their best interest to let the affordability requirements expire and bring the management requirements of the set aside units in line with the rest of the units.

### **c. Replacement**

Based on prototypical development cost data compiled by David Rosen & Associates for Moreno Valley, it is estimated that land costs are \$5 per square foot or \$218,000 per acre. To replace twenty eight units, a total of two acres would be required with a zoning of R-15. On a per unit basis, the cost listed below is for a 725 square foot, two bedroom, one bath apartment. Although the existing units are larger, it is anticipated that the replacement units would meet, but not exceed, minimum unit sizes as established by the Department of Housing and Urban Development. To replace the at risk units at the square footage of those currently available would be prohibitively expensive. However, the analysis does assume replacement at a comparable number of bedrooms. Development fees are based

on actual costs compiled by Rosen & Associates for a prototypical multifamily development. The total replacement cost for twenty-eight units is \$1,928,750 and is comprised of the following:

LAND COST	\$ 14,533
HARD CONSTRUCTION COSTS (@41.50/sf)	\$ 30,087
DEVELOPMENT FEES	\$ 12,784
SOFT CONSTRUCTION COSTS (20% Land, Hard Costs & Fees)	\$ 11,480
TOTAL DEVELOPMENT COSTS/UNIT	\$ 68,884
TOTAL DEVELOPMENT COSTS (28 UNITS)	\$1,928,750

#### d. NonProfits

Coachella Valley Housing Coalition There are no community based nonprofit organizations in Moreno Valley that possess the legal and managerial capacity to acquire and manage the Mountain View Apartments. However, the City of Moreno Valley is working with the Coachella Valley Housing Coalition (CVHC), a nonprofit housing developer which develops, owns and manages 700 units. All of the units CVHC owns are 100% affordable to low and very low income families.

The City of Moreno is currently working with CVHC exploring possible new construction, acquisition and rehabilitation projects that CVHC might undertake in Moreno Valley. CVHC has the legal capacity and proven managerial experience to acquire and manage affordable housing.

Riverside County Housing Authority The housing authority owns and manages seventy (70) public housing units in Moreno Valley and provides an average of three hundred (300) Section 8 certificates and vouchers in the city. The housing authority may be of assistance in lending expertise in the management or financing to preserve at risk units.

The East Los Angeles Community Union (TELACU) In cooperation with the Redevelopment Agency, TELACU developed seventy-five (75) units of senior housing. At this time TELACU has decided not to venture into family housing, but they will reconsider the matter during the next year or two.



#### **e. Sources of Preservation**

Home Investment Partnerships Program (HOME) The City of Moreno Valley did not qualify as a participating jurisdiction for the HOME program. However, the City will apply to the Department of Housing and Community Development (HCD) for funds under the state administered HOME program. At this time, we do not know the level of funding that will be available, however, HOME funds can be used for acquisition, rehabilitation and new construction.

Community Development Block Grant (CDBG) The city's CDBG allocation in fiscal year 1992-93 was \$600,000. These funds have been obligated to a variety of social service, housing and capital improvement projects. It is anticipated that although the city's allocation may be higher in the future, CDBG funds will continue to be obligated primarily to neighborhood preservation programs. However, if preservation of the at risk units requires that new units be built or rehabilitated, CDBG funds may be available in the form of a loan or grant.

Tax Credits for Low Income Rental Housing If the City and Coachella Valley Housing Coalition partner in construction, or acquisition and rehabilitation of rental housing, tax credits will certainly constitute one of the sources utilized to finance development costs.

Affordable Housing Program (AHP) The Federal Home Loan Bank's Affordable Housing Program (AHP) makes funds available at lower interest rates for the acquisition, construction and or rehabilitation of rental housing. AHP funds are available twice a year on a competitive basis.

Housing Authority Administrative Funds The City of Moreno Valley does not have control over the administrative fees received by the Housing Authority. Consequently, the administrative fees cannot be assumed as a source of funds that would be available for the preservation of units in Moreno Valley.

Moreno Valley Turnkey Program The Redevelopment Agency has established a program that makes loans and provides predevelopment funds to nonprofit housing developers for the acquisition and rehabilitation of multi-family rental property. A total of \$250,000 has been obligated from the housing set aside to fund the turnkey program in fiscal year 1992-93.

RDA Housing Set Aside At the close of fiscal year 1991-92, the housing set aside fund had a balance of \$1.4 million. These funds have not been obligated. However, the city is

preparing a housing strategy that will develop a series of programs for use of the housing set aside. Some funds from the set aside can be made available for preservation of at risk units.

Refunding - Multi-family Revenue Bonds A refunding is the issue of new bonds to refinance a prior issue. A refunding can reduce the debt service on a project making it more attractive for an owner to extend the affordability term on set aside units.

#### **f. Quantified Objectives**

There are no units at risk of conversion during the first five year planning period from 1989 through 1994. During the second five year planning period, 1994 through 1999, twenty eight units will be preserved in the City. Preservation will be accomplished through one of the three programs listed below.

#### **g. Preservation Programs**

Refunding The City is proposing to work with the property owners, and the County, to undertake a refunding of the bonds for the Mountain View apartments. By providing the owners with a lower interest rate, thus reducing the debt service on the project, the City will require that the owners agree to extend the affordability term on the set aside units to thirty years. However, since the Mountain View Apartment complex only has one hundred and forty (140) units, staff has contacted the owners of all bond financed projects in the city and proposed a pooled refunding to lower issuance costs per project and expand the number of long-term affordable units. The refunding could create up to an additional two hundred and twenty-nine affordable (229) units. A refunding would preserve twenty-eight at risk units and also make the balance of the set aside units (229) affordable for up to thirty years, in essence increasing our long-term affordable housing stock.

Rent Differential If the refunding cannot be accomplished, the City will consider the use of housing set aside funds to pay the rent differential between affordable and market rents at the time the rent restrictions on the twenty-eight units expire. Since we cannot forecast what market rents will be in six years, quantifying an actual cost is impossible at this time. However, if for example, the affordable rent for a two bedroom apartment in 1998 is \$750 and the market rent was \$850, the housing set aside would pay a \$100 differential. Assuming a rent differential of \$100 per month, per unit, for twenty-eight units, the cost to the Agency would be \$33,600 per year.

Forward Commitment Another method that the City could employ in preserving the twenty-eight units would be to purchase a commitment from the owner to maintain rents affordable for a given period of time. For example, in 1998 the

City could provide the owner with a dollar amount equivalent to the discounted value of the foregone rent on the units over a ten year period.

New Construction / Inclusionary Units If preservation cannot be accomplished through the programs above, the City will endeavor to replace at risk units through new construction either in conjunction with a nonprofit or for-profit developer, or through an inclusionary program that the City will consider instituting under its existing housing element.



**TABLE VI-P-1**  
**MORTGAGE REVENUE BOND ASSISTED DEVELOPMENTS**  
**INVENTORY OF UNITS AT RISK OF CONVERSION**  
**PLANNING PERIOD JULY 1, 1994 THROUGH JUNE 30, 1999**

Project Name/Address	Owner Name/Address	Length of Controls	Conversion Date	Total # of Units	# of Affected Units	Bedroom Mix	Square Footage	Rent	Date Built
Mountain View Apartments 13125 Heacock	Peter Anderson 1610 West Oceanfront Newport Beach, CA 92663	10 Years	1998	140	28	1 - 48 2 - 60 3 - 32	700 900 1,000	\$525 \$635 \$695	1988
Ashwood Apartments 12315 Graham Street	Chang Living Trust 20 Covered Wagon Lane Rolling Hills Estates, CA 90274	10 Years	1995	120	24	1 - 44 2 - 76	709 938	\$510 \$620	1985
Silverado Village 13933 Chagall Court	Ms. Linda Brower NHP Acquisitions 1225 Eye St. NW Washington, DC 20005	10 Years	1996	384	77	1 - 172 2 - 212	930	\$540 \$640	1986
El Dorado Pointe 12159 Calle Sombra	Desert Pointe Properties 6653 Embarcadero Dr. Stockton, CA 95209	10 Years	1996	330	66	1 - 150 2 - 280	930	\$525 \$665	1986
Cross Creek Village 12080 Pigeon Pass	Max Cross & Co. 1807 E. Olympic Blvd. Suite 100 Los Angeles, CA 90021	10 Years	1999	312	62	1 - 76 2 - 236	705 905	\$535 \$595	1989
<b>TOTAL</b>				1,286	257				

#### D. REGIONAL HOUSING NEED ALLOCATION (RHNA)

Under State law, each incorporated city is required to analyze existing and projected housing needs and develop an implementation program for its contribution to the attainment of the State housing goals. In addition, the projected housing need must include a locality's share of regional housing needs. In 1980, AB 2853 was passed requiring all councils of governments to develop regional allocations of housing needs for all income levels. This includes a determination of current and projected housing needs for the entire County as well as allocated totals of the City and County level. The regional housing determination must be made by the appropriate council of government but may be revised by the local government if the revision can be supported by available data and accepted planning methodologies.

Projecting future needs, even for the relatively short-term future, for a rapidly growing and changing city is even more difficult than estimating current needs. Future needs are made up of unmet current needs plus the needs that will be created by future in-migration, births over deaths, loss of existing units, rising housing costs and changes in the demographic composition of the community.

The Southern California Association of Governments (SCAG) Regional Housing Needs Assessment (RHNA) attempts to predict future population and household growth for the five-year period from 1989 to 1994 (1988 SCAG RHNA). The RHNA forecasts a total housing need of an additional 17,741 units in Moreno Valley, which equates to 20% of the total housing need for Riverside County by July of 1994. The RHNA breaks down this need into additional households, additional vacant units desired and demolition adjustment.

TABLE VI-Q

#### 1989-1994 MORENO VALLEY HOUSING NEED

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Additional Households	17,410
Vacancy Adjustment	316
Demolition Adjustment	15
Total 5-Year Need	17,741

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Source: 1988 SCAG RHNA



The RHNA also breaks down the total need by units that are affordable to various income categories based on percentage of the County's Median Income (Table VI-R). Of the total Moreno Valley housing needed by mid-1994, 41.7% needs to be affordable to families of low and very low income; 18.5% to moderate income families; and 39.8% to high income families.

**TABLE VI-R**  
**1994 HOUSING NEED BY INCOME LEVEL**

Very Low Income 0% to 50% of Median	3,375	19.0%
Low Income 50% to 80% of Median	4,023	22.7%
Moderate Income 80% to 120% of Median	3,287	18.5%
High Income More than 120% of Median	7,056	39.8%
<b>TOTAL NEED</b>	<b>17,741</b>	<b>100.0%</b>

Source: SCAG RHNA - 1988

In order to satisfy this housing need, an annual average of 3,548 units (11% of the 1989 Housing Stock) will need to be added to the housing stock between July, 1989 and July 1994. A comparative look at Moreno Valley residential building activity from January, 1986 to September, 1988 (Table VI-N) indicates that housing construction permits were issued at a rate of 3,507 units per year during that period, but overall additions to the housing stock from 1986 to 1989 averaged only 2,974 per year. This indicates that the City of Moreno Valley may have some difficulty in meeting its share of the SCAG Regional Housing Needs, especially in the area of low and very-low income affordable units.

It will be the City's maximum goal to provide for the construction of 3,548 new housing units per year, from July of 1989 to July 1994 (a total of 17,741 units). The City will specifically need to direct its efforts and resources toward the creation of moderately-priced units that are affordable to lower-income households in order to approach the desired ratio of low and moderate income units prescribed by the SCAG RHNA.



## **E. HOUSING CONSTRAINTS**

The supply of affordable housing for all income levels can be affected by a variety of housing constraint factors. Such factors can be generally classified as governmental and non-governmental constraints. In short, such constraints have an affect on the ultimate cost of housing which must be paid by the renter or owner. Many of these constraints cannot be overcome by local government, particularly those related to the condition of the national economy, but others can be addressed.

### **1. GOVERNMENTAL CONSTRAINTS**

A variety of local, State, and Federal governmental policies and actions affect the cost and affordability of housing.

#### Decreasing State and Federal Commitment to Housing

The Federal Government's emphasis on housing policies and funding have shifted with changing administrations and priorities. Over the last ten years, funding for housing and other domestic programs has been sharply cut back. Similarly, State funding for housing programs is also limited. These reductions in funding for housing programs, including new construction, have resulted in a significantly reduced amount of new construction of affordable units.

#### Conflicting Responsibilities of Local Government

Facilitating the development of low and moderate income housing is only one of the many responsibilities of local governments. A city must also plan for environmental quality, neighborhood character, adequate infrastructure and reflect the concerns of current residents. These other responsibilities may conflict with the provision of low-income housing. Misconceptions about low-income housing, often thought of as blighted, high-density rental units, contributes to these conflicts. The circumstances which led to the City's incorporation in 1984, which was largely based on citizens efforts to upgrade the standards of new housing and control growth, have also been important in creating the current attitudes toward affordable housing (especially higher density development). A challenge currently facing public officials is balancing their many areas of responsibility and educating the public as to the true nature of affordable housing. Without increased education, neighbors of any proposed affordable housing projects will usually oppose the project, sometimes successfully.

### Development Standards

Land use, zoning, and building restrictions are necessary for the orderly development of every city, but they can also often act to reduce the availability of moderate income housing. Minimum lot size requirements, minimum building size requirements, building code provisions, architectural requirements, development fees and other standards raise both the quality and the price of construction for new housing.

The General Plan establishes a policy framework for all development within the City. The Land Use Element of the General Plan designates areas for land use and probable densities at which residential development should be permitted to occur. Therefore, the potential for additional housing is set by the ultimate land use densities and areas designated on the map. The current General Plan land use categories, areas and maximum residential buildout capacity are shown in Table VI-S.



**TABLE VI-S**  
**LAND USE CATEGORIES AND HOUSING UNIT CAPACITY**

<u>Category</u>	<u>Acres</u>	<u>%</u>	<u>Allowed Density</u>	<u>Max. Unit Capacity</u>
RR	5,500	12.75	depends on topography	500 (est.)
HR	1,947	4.51		400 (est.)
R1	2,201	5.10	1	2,201
R2	4,033	9.34	2	8,066
R3	1,194	2.77	3	3,582
R5	7,753	17.95	4-5	38,765
R10	265	0.61	8-10	2,650
R5/R15	261	0.60	4-15	3,915
R15	123	0.28	12-15	1,845
R20	280	0.65	16-20	5,600
PR	789	1.83	varies	3,945 (est.)
*SP-Res.	2,695	6.24	7.12	19,190
Non-Res.	1,790	4.15		
OTHER	14,346	33.22		
TOTAL AREA	43,182	100.00%		90,659

\*The SP Category includes 303 acres of medium-high and high-density zoning with a maximum unit capacity of 5,239 units.

Total Single Family Land Use (15,181 acres)	52,614 units
Existing units	27,191 units
Estimated Additional Development Capacity	25,423 units
Estimated vacant acreage available	9,000 acres

Source: Moreno Valley General Plan, 1988

A Comprehensive Development Code has been drafted and is scheduled for adoption in 1991. The code incorporates State-mandated requirements and allowances, such as permitting manufactured housing in all single family districts, and will be amended, as necessary, to comply with new State requirements on low-income density bonuses and Emergency Shelter.

The City Development Code allows for construction at maximum densities in R5 thru R20 districts only if the requirements of sufficient infrastructure, compatibility with surrounding area, and either added amenities, affordable housing for low & moderate income households, or housing for special needs groups is provided. Projects in residential 10, 15 and 20 districts may be permitted to exceed the maximum density for senior citizen apartment and congregate care projects (subject to the infrastructure and compatibility requirements).

Based on the current zoning densities, land uses and approved specific plans, the City of Moreno Valley General Plan projects 74,605 dwelling units (58,404 single-family and 16,201 multi-family) within Moreno Valley. This would house a population of 234,000 which is a 130% increase over 1989 levels. At the current rates of growth, and precluding subsequent zoning changes or expansion, buildout would be achieved by about the year 2005.

The availability of vacant or underutilized land within land-use districts designated for high-density development within the City is shown in Table VI-T. If built at the maximum allowable density, these areas could include 8,932 units.

The limited availability of vacant or underutilized land with higher density designations and the relatively low-densities allowed affect the economic feasibility of multi-family rental unit development.

**TABLE VI-T**  
**AVAILABILITY OF HIGHER-DENSITY PROJECT SITES**

Land Use Designation	Total Area	Available Area	Unit Capacity
R10	265 acres	22.7 acres	227
R15	123 acres	33.84 acres	507
R20	280 acres	28.72 acres	574
R5-15	261 acres	159 acres	2,385
**SP	303 acres	303 acres	5,239
	---	---	---
Total	1,232 acres	547.26 acres	8,932

\*\* Medium High and High density designations within the Moreno Valley Ranch and Towngate Specific Plan areas.

Source: Moreno Valley Planning Department

## Development Fees and Procedures

Development fees have increased significantly since the passage of Proposition 13 in California. Local governments must balance the need for affordable housing with budgetary constraints and the need for services to be economically self supporting. Development fees within Moreno Valley comprise between 5% and 12% of the cost of new housing, with a greater impact on the final cost of low-cost housing than on higher-priced units. In 1989, the City reviewed its fee structure to determine the ratio of cost to the City of new housing units to fees collected, particularly in relation to Development Impact Fees. The study demonstrated that the total impact of new housing to the City was \$7,200 per unit. In response to this information the City raised its Development Impact Fee to \$3,100 per unit for single-family units and \$1,600 for multi-family units (with the intention to periodically review the fees in the future). Total Development Fees currently add between \$8,000 and \$9,000 to the cost of each unit in multi-family residential construction.

The Draft Development Code (scheduled for adoption in late 1991) includes procedures for the efficient and timely processing of permits and approvals as well as appeals and review procedures. It also controls the procedure for condominium and mobile park conversions for the protection of tenants.

## Code Enforcement

The Code Enforcement process is another aspect of the balancing of responsibilities to which local governments must be sensitive. Code Enforcement can be an important tool used to require landlords to maintain rental units in habitable condition. It can also result in the loss of low cost rental units if units are "red-tagged" (declared uninhabitable), and the landlord perceives the costs of rehabilitation of such units are not justified by low rental returns. If the units are demolished, the tenants may require relocation assistance. If the property owner chooses to rehabilitate the property, tenants may require relocation assistance until the units are made habitable.

## 2. NON-GOVERNMENTAL CONSTRAINTS

Non-governmental constraints to affordable housing in Moreno Valley include land cost and availability, construction costs and financing costs. The City has relatively little control over these factors. In effect, the influence of these factors on localized housing prices and affordability is dependent upon regional market constraints and opportunities.



### Land Costs and Availability

The cost of land has become a significant component of overall housing costs. The accelerated rise in land costs in the Southern California markets is an important reason for the accelerated development of housing in Moreno Valley. Relatively inexpensive land costs made housing more affordable than in Orange and Los Angeles Counties. However, as the demand for housing increases and the supply of undeveloped land decreases, the cost of land goes up.

Raw land costs currently comprise from 10% to 18% of the cost of the typical 1,700 square foot tract- developed single-family dwelling in Moreno Valley. An estimated 9,000 acres of residentially-zoned land in the eastern 1/3 of the City (in addition to approximately 4,000 acres of approved specific planned development) is vacant, suitable for development, and available to meet the housing needs of the City over the next 10 to 15 years.

As discussed in the government constraints section, relatively little vacant land with higher density and multi-family usage designations is available within the City, increasing the price of such land and the over-all cost of rental units that may be constructed. Land for multi- family development currently sells as approximately \$11,000 to \$12,000 per allowed unit.

### Construction Costs

The price of new residential units is generally determined between the building industry and buyers by the housing market. Actual construction cost is a factor of current labor costs, material pricing and finance costs, and is estimated to range between \$38 and \$60 per square foot, depending on the extent of architectural detailing and choice of materials. These construction costs reflect a substantial increase since 1975 when per square foot costs ranged around \$18 to \$20. Since the single most important factor in the total construction cost of a new housing unit is size, homes suitable for larger households tend to be more expensive. Another recent local trend is toward "move-up" housing with added features, square footage, and amenities that increase the sales price.

### Cost and Availability of Financing

The greatest impact upon the affordability of housing from 1980 to 1985 was the increase in financing costs. Interest rates on mortgages for housing rose to unprecedented heights approaching 18% during the early 1980's. Although the rates receded, they still averaged 14% during 1984. More recently, conventional interest rates have slipped as low as 9% (fixed rate,



30 years with 20% down). However, mortgage interest rates have begun to increase and it remains to be seen where and when they will level off. Currently interest rates on 30 year mortgages range from approximately 10 1/2% to 12 1/2%.

Interest rates not only affect the cost of home ownership but also the cost of construction and ownership of rental units.

A greater problem in 1990 is the possibility of lenders increasing loan equity ratios (now moving toward 25 percent). First time buyers, will be especially hard-pressed to come up with a larger down payment. Some loan programs are still available with as little as 10% down, but these are increasingly rare. There is no evidence of geographic areas or ethnic groups that are underserved in the financial market, although the general "softening" of the housing market throughout Southern California during 1990 may effect the availability of financing and lead to more restricted lending in the future.

As lending institutions become more cautious nationally, and Federal regulations become more restrictive, the availability of construction financing has been drastically reduced, even in booming areas such as Moreno Valley. Construction financing for multi-family rental units is particularly scarce in Moreno Valley in mid-1990, since high fixed costs and relatively low densities make smaller units an economically unattractive investment and larger units are not competitive with other types of housing at current prices.

#### Environmental Issues

Environmental concerns impact housing in several ways in the Moreno Valley area. The topographic concerns of hillside construction create the need for strict land use and zoning requirements, as do floodplain concerns. In an effort to alleviate health and safety hazards generated from construction in these areas, Moreno Valley has provided safe standards for development, including certain density restrictions.

Approximately 17.3% of the 43,182 acres within the Moreno Valley sphere of influence have some restriction on housing construction under the Rural Residential, Hillside Residential and Hillside Transition Area Zoning Classifications. The land use categories have, in fact, provided the opportunity to develop in these areas while appropriately addressing environmental and safety concerns, rather than closing them completely to development. An additional 15.8% of the City is designated as hillside or public open space. Development and construction costs on upper hillside sites are more costly for technical as well as density restriction reasons. Therefore, while the availability of these sites may help increase overall housing, it would not aid the development of lower income affordable units.

### Economic Market Constraints

The high median household income of families moving to Moreno Valley from other areas, may lead builders and developers toward increased concentration on more profitable higher-priced units, to the exclusion of low and moderate income households. Some indication of this is already apparent in the increased inclusion of luxury features and larger square footage units that are attractive to higher income buyers. By January of 1990, however, there were indications that new homes in the highest price ranges (\$250,000 and up) were not selling well and some developers were redoing their development plans to include more homes at moderate prices. Lending institutions report that the \$130,000 to \$140,000 range is the most active segment of the new and 1st resale market in Moreno Valley.

The availability of single-family homes at competitive prices, in combination with the market profile of new Moreno Valley residents from Orange and Los Angeles County and elsewhere, has kept the rental market relatively unattractive to developers and financing sources (especially for larger apartments).

### Discrimination

The degree of impact of discrimination on housing in Moreno Valley and Riverside County is not clear. It can act to exclude racial and ethnic minorities as well as certain other groups facing special housing problems, such as: young single parents, young single adults, families, large families, elderly, and handicapped. Discrimination may force people to live in inadequate and/or substandard housing, in undesirable neighborhoods, or pay a disproportionate amount of their income for housing. Discrimination disproportionately impacts low and moderate income persons who have less economic influence on the housing market and less access to political and legal resources. Fair housing laws such as the 1959 Unruh Civil Rights Act, the 1963 Rumford Act and the 1968 Fair Housing Act have been established to prohibit discrimination on the basis of race, color, religion, sex, national origin, familial status and handicap. The City-funded Fair Housing Program works jointly with the Department of Fair Employment and Housing and HUD regarding the enforcement of these laws.

Discrimination in financing may affect sale and maintenance of housing in older deteriorating neighborhoods and in neighborhoods with high minority concentrations. Lending institutions are often reluctant to finance in these neighborhoods because of the assumed high risk and low value of these units. This adds to the decline of neighborhoods since rehabilitation efforts are critical to these areas. The higher rate of population growth, increasing land values and the creation of a City Redevelopment Area (CRA) which includes the most problematic



neighborhoods have served to ameliorate these problems in Moreno Valley in recent years. The continuation and expansion of redevelopment activity is expected to be a major factor in the improvement of these neighborhoods.

The Community Reinvestment Act charges local financial institutions with the responsibility of maintaining equitable lending policies to insure non-discriminatory lending practices. Still, absentee landlords often do not make repairs or improvements in these neighborhoods because of the high risk, low economic returns, and loss of profits and improvements which do not increase rental value are often avoided.

Housing discrimination limits opportunities, denies access and creates unnecessary barriers. Furthermore, it fosters and reinforces fear and the non-acceptance of others. Fair housing is guaranteed by Federal law. It ensures the freedom of choice of housing to all persons in the creation of an integrated society.

Moreno Valley, with its relatively lower home prices, is increasingly attractive to minorities moving from L.A. and Orange Counties in pursuit of the traditional "American Dream" of home ownership and the suburban life style. Newer neighborhoods generally have a mixture of ethnic diversity and better integration from the start due to Fair Housing laws.

### 3. ENERGY CONSERVATION

Energy Conservation impacts housing in several ways. In addition to energy requirements related to uses in the home, energy used to travel from home to work, to construct housing, and to support housing services, such as water and electricity, reveal a close relation between energy consumption and housing. Energy conservation can be encouraged and enhanced by efficient land use patterns, code enforcement, building standards, and rehabilitation programs. Some energy conservation improvements can increase the construction cost of new homes. The initial cost of many energy saving devices is prohibitive to most lower and moderate income households and the cost recovery must be amortized over time. When requiring energy conservation measures above and beyond those required by Title 24 and the Building code, the increase in initial purchase price or resulting rental rate must be balanced against the ultimate reduction in monthly utility costs for the resident and the benefit of reduced energy consumption to the community.

Moreno Valley has at least four characteristics that might offer unique opportunity for energy conservation:

- a. The geographic location between the desert and the sea, with a mild sunny climate, may offer design opportunities for passive heating and cooling during much of the year.
- b. Access to Highway 60 and a considerable number of workers who commute, should be considered an opportunity to reduce transportation energy consumption.
- c. A relatively new, fast-growing city may have special chances to create beneficial relationships between housing and employment locations.
- d. The high median income and percentage of upper income housing provides a chance to require additional (for a certain percentage of new housing) energy conservation features which are affordable and economically beneficial to upper income home buyers, but would not be possible for lower income households.

The City's development code specifically addresses both active and passive solar energy design.

#### 4. COMMUNITY PARTICIPATION/ISSUES REPORT

Portions of the Housing Element of the Moreno Valley General Plan were developed as an integral part of the City's first General Plan (adopted September 20, 1988), the result of an extensive program of community participation and professional research and decision making.

Prior to formal initiation of the General Plan Development Program and City Council appointed an 18- member General Plan Advisory Committee to assist in the formulation of the program. Several methods were used to elicit the broadest community participation to identify and evaluate significant community issues, needs and desires.

First, a series of six one-evening workshops were held on a City-wide and area basis to explain the process and gain input. In addition, two sets of community interviews were conducted. Twenty-four (24), in-depth "target" interviews were done, including interviews with past and present City Council Members, Planning Commissioners and other key community members. A broader, scientifically-conducted community opinion survey was also made to identify attitudes and desires of the community at large. The results were summarized in the Community Issues Report, which is available under separate cover.

Baseline data and research material were collected, evaluated and compiled into the Existing Setting Report. This was followed by a Goals and Objectives Report based on the information and data from the previous reports and input from the Advisory Committee. Three alternative Buildout Scenarios that were consistent with the Goals and Objectives Report were prepared and used in conjunction with the Master Environmental Assessment as the basis for the General Plan.

The General Plan was recommended for adoption by the Advisory Committee on December 6, 1987 and after public hearings before the Planning Commission and City Council, was formally adopted on September 20, 1988. Subsequently, data pertaining to housing and housing needs projections was distilled from the General Plan and other sources including the 1988 Southern California Association of Governments Regional Housing Needs Assessment [SCAG RHNA], to create the basis of the revised General Plan Housing Element. The Advisory Committee was then reconvened to review and comment on the Housing Element as an independent, updated document.

##### 5. REDEVELOPMENT AGENCY LOW INCOME HOUSING SETASIDE FUND

Since the adoption of a Redevelopment Project Area in December, 1987, of City of Moreno Valley has accrued approximately \$844,000 in its Low Income Housing Setaside Fund. The City policy has been not to utilize these funds until a comprehensive housing plan is in place. Instead the City has continued to use Community Development Block Grant (CDBG) Funds for low-income housing and related programs. The City expects to begin use of the Low Income Housing Setaside Fund in late 1990 on programs to increase the quantity and quality of low-income affordable housing in the City.

The RDA is in the process of developing a comprehensive housing assistance plan to permit the expenditure of monies from the low and moderate Income Housing Fund. The agency has entered into a cooperative agreement with the MVCAAC to examine and evaluate alternative approaches to assist in the furtherance of increasing, improving and preserving this City's supply of low and moderate income housing.

The Moreno Valley Civic Activities Assistance Corporation (MVCAAC) was created in January 1990 and expects to develop a comprehensive housing assistance program under contract to the RDA. MVCAAC is a non-profit public benefit corporation which is intended to assist the City with affordable housing issues. Its stated purpose is "to provide financial and other assistance to the City by acquiring, constructing, rehabilitating, remodeling, improving, installing and financing various facilities, land and equipment, including affordable multi-family and single-family housing projects."



The MVCAAC Board of Directors includes civic leaders from diverse fields. The Board has been asked to recommend a program for the utilization of the financial resources generated by the Low-Income Housing Fund. It is expected that their recommendation may include such uses as:

- a) Joint ventures with other public and/or private entities to develop low-income housing.
- b) Leveraging housing fund resources by using them to guarantee housing bond issues.
- c) The purchase of land for low-income housing construction.
- d) Rehabilitation of deteriorated low-income housing.
- e) Incentives to developers that would make low-income affordable housing economically feasible.

It is expected that, based on recommendations of the MVCAAC Board, the City intends to budget the expenditure of Housing Fund resources for low-income housing development programs in 1991. The RDA Low-Income Housing Setaside Fund is expected to have generated a total of more than \$5.5 million by July of 1994 according to the schedule in Table VI-U.

**TABLE VI-U  
REDEVELOPMENT PROJECT TAX-INCREMENT RECEIPTS TO  
LOW-INCOME HOUSING FUND  
(RDA 20% SETASIDE)**

	<u>Tax Increment</u>		
	<u>Actual Receipts</u>	<u>Projected</u>	<u>20% Setaside</u>
Balance 1988/89*	1,247,969	753,000	249,592
FY 1989/90 YTD	2,972,463	2,298,000	594,493
FY 1990/91		3,615,000	723,000
FY 1991/92		4,856,000	971,200
FY 1992/93		6,665,000	1,331,000
FY 1993/94		8,121,000	<u>1,624,200</u>
Total Projected Setaside Funds			5,493,485

\*FY 1988/89 actual figures also include accumulated costs for years prior to 1988/89. All interest calculations reflect a full years impact.

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Source: Moreno Valley Redevelopment Agency, Projections by Katz Hollis.

The tax-increment receipts to the Housing Fund may be augmented by revenue from other sources developed by the City, the RDA or MVCAAC programs such as in- lieu fees from developers or other housing programs that may be developed.

## 6. POTENTIAL SITES FOR EMERGENCY AND TRANSITIONAL HOUSING

The City has identified the following City-owned locations as potential locations for emergency shelters and transitional housing:

Senior Nutritional Center; 13671 Frederick Street	Public	Public
Graham Street Annex; 12130 Graham	Residential Max. 5 du/ac and threshold 10 du/ac	Public
Edgemont Park	Residential Max. 20 du/ac and threshold 10 du/ac	Residential Max. 20 du/ac and threshold 10 du/ac
Sunnymead Park	Open Space	Open Space
*Locust and Redlands 43-Acre Vacant Site	Residential Max. 1 du/2.5 ac	Residential Max. 1 du/2.5 ac

The City has further identified the building at 23700 Sunnymead Blvd. (previously leased by the City for use as the Community Service Center) and the adjacent warehouse as potential sites for emergency or transitional shelters. The area is currently zoned as community commercial and is part of Specific Plan 204.

The City is currently revising its Development Code and zoning to conform with the General Plan. The revised Code will include specific reference to Emergency and Homeless Shelter locations and criteria for conditional use which are standardized, objective and no more restrictive than those of a similar use. It is expected that the Development Code will be discussed in public hearings and adopted by the City Council in early 1991.

## 7. ANALYSIS OF PREVIOUS HOUSING ELEMENT (1989 AND 1990)

The City's previous Housing Element took effect with the adoption of the City's original General Plan on September 20, 1988. That Housing Element contained seventeen "actions" to be taken in support of the general Housing Goals enumerated as part of the Community Development Element of the General Plan. The "actions" have been and are being taken by the Planning and Economic Development Departments or others as appropriate and deal primarily with the new development code, economic and financial support and Fair housing issues.

Quantified goals related to Housing were as follows:

### Objective 32.0

Provide a wide range of residential opportunities and dwelling unit types at an average annual rate of 1,880 dwellings over the next five (5) years to meet the demands of present and future residents of all socioeconomic groups, and promote the development of an adequate number of new dwelling units which are affordable to very low, low, moderate, and upper income families.

### Objective 33.0

Retain at no less than the present levels, approximately 400, the number of subsidized housing units of all types, and expand affordable housing opportunities for low and moderate income households by capturing for the benefits of eligible Moreno Valley residents, 400 new federal housing subsidies over the next five years.

### Objective 34.0

Rehabilitate deteriorated dwellings at an average annual rate of 195 dwellings over the next five (5) years.

Actual accomplishments during the two years of the previous housing element include:

### Objective 32.0

A total of 3,862 Single Family Dwelling (SFD) building permits were issued in 1989 with an average valuation of \$107,000. No multi-family permits and 6 mobile home permits were issued. The unusually high number of permits taken was a result of builder's anticipation of development impact fees going into effect in 1990. (The City Manager has been authorized to reduce or waive the impact fee for



projects which provide exceptional benefits in housing accessibility for lower-income groups). SFD final inspections totaled 3,081 units. In 1990, final inspections were completed on 2,207 single family dwellings and 41 multi-family units. Building permits were issued for 868 SFD's with an average valuation of \$116,500 and 54 multi-family units with an average value of \$53,250. A variety of residential zoning areas and densities are specified in the General Plan and will be included in the City's revised Development Code. Threshold densities will insure that residential areas are fully utilized. "Planned Unit Developments" are encouraged and four major specific plan developments have been approved, containing a total of 19,190 dwelling units.

#### Objective 33.0

The Housing Authority of Riverside County reported 209 new Section 8 contracts in Moreno Valley by January of 1990 and a total of 435 leased or subsidized units as of January 1991. The City has successfully cooperated with The East Los Angeles Community Union (TELACU) to obtain HUD Section 202/8 funding for a 75-unit subsidized rental project for seniors. Tenants will pay no more than 30% of gross adjusted income for rent.

#### Objective 34.0

Thru the use of CDBG funds the City has expended \$10,995 over three years for minor home improvement and repair grants (\$250 maximum) to 69 senior citizen households. An additional \$190,500 was provided in 1989 and 1990 for a City- administered home improvement program offering non-interest, deferred loans of up to \$10,000 to repair lower income owner- occupied, single family homes in identified target areas and a comprehensive procedural manual has been prepared for City Council approval. A rental rehabilitation program is being added in 1991.

**Analysis:** The two years of activity under the original housing element were largely concerned with the organization and establishment of the housing programs. This was done largely through the City's Department of Economic Development in cooperation with the Housing Authority of Riverside County. A housing specialist was added to City Staff in the last half of 1990 in order to advance these continuing programs.



The use of Redevelopment set-aside funds was impeded by a lawsuit against the redevelopment project which was settled in 1989. Use of these setaside funds is discussed elsewhere in the Housing Element. Low-income Housing Programs were impeded by a lack of Section 8 Rental Assistance allocations and the lack of HUD funding for the Section 312 Rehabilitation Program.

The Planning Department has concentrated its efforts on the creation of a Development Code and Zoning Ordinance for the City. The Development Code is expected to go to public hearings and to the City Council for approval in early 1991. The Riverside County Housing Authority was contracted to administer the City's Fair Housing Program. Most of the required "actions" of the previous Housing Element have been accomplished by these undertakings and are included or expanded in this revised Housing Element.

Quantitative goals of the previous Housing Element were mainly expected to be fulfilled in the later years of the 5-year plan. With the initial programs now established, a housing specialist hired, a new development code adopted, RDA setaside funds available, and additional incentives and requirements to be provided by the revised Housing Element, the effectiveness of the housing programs should increase early in the 5 year time-frame of this Housing Element.

## **F. GOALS, POLICIES AND OBJECTIVES**

### **1. OBJECTIVES**

It is the objective of the City of Moreno Valley to ensure that suitable, decent, safe, sanitary and affordable housing is available to all residents of the City regardless of income. This broad objective will guide the City's actions with respect to housing. The City will endeavor to use its unique situation as a newly incorporated and rapidly growing community to avoid future housing problems by balancing programs intended to meet immediate needs with careful planning to exploit long-term opportunities and potentials. Since the housing industry generally responds quickly to the needs and desires of upper income households, but is less responsive to the needs of lower-income households, the Moreno Valley Housing Element will deal largely with programs designed to insure that the needs of those groups that are disadvantaged in the housing market are met.

The following objectives, in conjunction with General Plan Objective 32.0, are the specific objectives of the Moreno Valley Housing Element:

- a. To expand the long-term housing opportunities for all residents of the City by developing new housing in accordance with density, building and environmental standards that is affordable to various income levels.
- b. To coordinate City housing programs with other governmental agencies (other Cities, County, State and Federal), the private sector (major employers, developers, realtors) and private non-profit agencies in an effort to achieve balanced regional housing growth within the larger Southern California Community.
- c. To provide a full and balanced variety of housing types to meet the diversity of needs throughout the City's residential neighborhoods, in proportion to the needs of the community.
- d. To provide appropriate, affordable housing for people with special needs, including the elderly, the handicapped, female headed households, and the homeless.
- e. To rehabilitate deteriorating housing throughout the City and prevent further deterioration of affordable units in order to ensure that all housing is safe and sanitary.

- f. To eliminate discrimination in housing with regard to race, color, religion, national origin, sex, age, family status, household composition, or sexual preference; and to ensure that equal housing opportunities exist for all groups.

In its efforts to achieve these objectives, the City of Moreno Valley will establish the following Policies and Programs in conjunction with the Policy Statements listed under General Plan Objective 32.0:

## 2. POLICIES

References to department actions, where appropriate, will be deemed to include other appropriate action by the City Council, RDA or other body vested with jurisdiction to act on the matter.

- 1.1 The City will utilize its authority, resources and influence to promote the creation and preservation of a variety of housing types, sizes and prices to meet the various needs of a wide spectrum of current and future residents.
- 2.1 The City will strive to ensure that its housing programs are in accordance with area and regional housing needs and that new development includes housing that is appropriate and affordable to all segments of the population including those with special housing needs.
- 3.1 The City will seek to insure that its policies and actions do not create undue governmental constraint on the availability and affordability of housing in Moreno Valley and will seek to mitigate or remove, where possible, such governmental, as well as non-governmental, constraints.
- 4.1 The City will seek to encourage and assist the rehabilitation and maintenance of lower-income affordable housing within the City.
- 5.1 The City will seek to maximize the public benefit of programs designed to increase the accessibility of affordable housing, especially to lower-income and special-needs households, including the homeless and handicapped.
- 6.1 The City shall affirmatively further fair housing throughout the City.



### 3. PROGRAMS

#### Policy

- 1.1 The City will utilize its authority, resources and influence to promote the creation and preservation of a variety of housing types, sizes and prices to meet the various needs of a wide spectrum of current and future residents.
- 1.1.01 The Moreno Valley Civic Activities Assistance Corporation (MVCAAC) will serve under contract to the RDA to develop a comprehensive housing assistance program and recommend a policy for use of the Low-income Housing Setaside Funds. The MVCAAC is chartered to provide financial and other assistance to the City.
- Target Dates:
- Jan., 1991 - Incorporation  
Oct., 1991 - operational and financial plan  
Jan., 1992 - Implementation
- 1.1.02 The RDA Low Income Housing Setaside Fund will be used in a timely manner to finance programs that will maximize the creation, retention and long-term availability of affordable lower-income housing. The Economic Development Department/Redevelopment Agency (EDD/RDA) shall annually specify the program uses to which Housing Fund receipts will be dedicated in combination with funds that may be available from other sources.
- 1.1.03 By March 1, 1992, the Economic Development Department (EDD), in cooperation with the Planning Department will recommend an Inclusionary Housing Ordinance to be adopted by the City that will mandate that all developments which include more than a specified number (to be established) of residential units contribute to the City's balance of affordable housing at all income levels, with the goal that a minimum percentage of all new housing within the City will be affordable to low and very-low-income households. Developers' contributions may be in the form of actual construction of affordable units within the project itself, construction of affordable units at another appropriate location or contribution of appropriate in-lieu fees to the Low-Income Housing Fund.

It is suggested that projects exceeding the inclusionary threshold be required to provide a proportion of their total units in moderate and lower-income affordable housing, with the option to provide a lower absolute number of very-low-income units or higher number of low- and moderate-income affordable units. The optional in-lieu fee will need to be set at an appropriate rate and could be adjusted with time and experience.

- 1.1.04 The EDD/RDA in cooperation with the Planning Department will develop criteria and control mechanisms that ensure that all housing that is directly subsidized by, or receives substantial economic assistance from the City (including Density Bonuses) in order to achieve affordability goals will remain affordable for the maximum feasible time (if not permanently). Such mechanisms shall be established and agreed upon before direct economic subsidies are granted to any specific project.
- 1.1.05 By July of 1992, the City will have adopted an ordinance or amendment to the Development Code which grants a density bonus of at least 25 percent, and an additional incentive, or financially equivalent incentives, to housing developments which include at least 20% of the units for lower-income households; or 10% of the units for very low-income households, or 50% of the units for senior citizens, under Government Code Section 65915.
- 1.1.06 As an additional incentive to developers who construct the State-mandated ratio of multi-family lower-income, very-low-income or senior housing units under Government Code 65915 and to help make apartments economically competitive in the construction financing market, the City will offer, when required additional incentives of appropriate economic value to the construction of target affordable housing units. These may be in the form of regulatory incentives or concessions or additional density bonuses that result in identifiable cost reductions that are equivalent to an added 25% density bonus.
- 1.1.07 In order to develop, coordinate and monitor the comprehensive housing programs set forth in this element and to ensure timely and effective execution of these programs, the City will provide necessary housing staff. After review of the annual Housing



Progress Report (program 2.1.09) to the City Manager may modify program responsibilities in order to effect the most efficient achievement of housing goals.

- 1.1.08 Through economic or non-economic incentives the City of Moreno Valley will stimulate the creation of 350 new mobile home spaces that are affordable to households of low and moderate income by 1995, with the potential for an additional 500 spaces by the year 2000.

The City will encourage the development of additional mobile home and manufactured housing projects through the zoning ordinance and zoning concessions, and/or direct assistance to private or public corporations (whether non-profit or for profit) in the form of land cost writedowns, infrastructure assistance, site identification and procurement, permit processing priority, or other methods which may be appropriate and feasible.

#### Policy

- 2.1 The City will strive to ensure that its housing programs are in accordance with area and regional housing needs and that new development includes housing that is appropriate and affordable to all segments of the population including those with special housing needs.
- 2.1.01 The EDD/RDA will work with County, State and Federal agencies and staff to ensure that Moreno Valley's housing programs benefit from any available assistance and that they are an integrated part of meeting regional housing needs.
- 2.1.02 The EDD/RDA, will work to directly subsidize the construction of at least 750 new housing units of various types and sizes that are affordable to very low and low-income households by 1995. This corresponds to 10.2% of the City's identified fair share of regional housing needs of 3,375 very-low and 4,023 low-income affordable housing units.
- 2.1.03 In order to meet the 1994 SCAG/RHNA figures of unmet needs (3,375 units of very low income housing, 4,023 units of low income housing and 3,287 units of moderate income housing, totalling 10,685 units) the City and RDA shall work to facilitate

the construction of 2,137 affordable units per year between 1990 and 1995. As a minimum objective, the City, and RDA shall work to construct, subsidize or facilitate the construction of one-third of this annual goal, an objective of 712 new affordable units per year. As a maximum goal, the City shall use 2,137 units per year, the annual unmet need figure for low-moderate income housing, plus an additional 1,412 units per year at upper-income, or market-rate prices.

The EDD/RDA will work with private developers and non-profit organizations to encourage the construction, rehabilitation and/or continued maintenance of affordable housing units that are appropriate to the needs of seniors, handicapped persons, single parent and female-headed households, and large families, groups identified as being a significant numerical component of the Moreno Valley population with special housing needs.

- 2.1.04 The City EDD/RDA will coordinate with the Housing Authority of Riverside County and will support the Authority in its application for Section 8 certificates and vouchers, with the goal of 400 Section 8 contracts in 1990 and such increases as may be available from HUD.
- 2.1.05 The EDD/RDA will provide City support and endorsement for nonprofit organizations seeking Federal or State grants to assist 200 low-income seniors or special needs households annually.
- 2.1.06 The EDD will work with the Department of Planning to develop a public information and education program to begin January of 1992, aimed at increasing public awareness of the need for affordable and special needs housing, what constitutes this type of housing, and appropriate ways of satisfying these housing needs. The program will seek to reduce public misunderstanding and opposition to affordable and special needs housing. A component of the program will also be aimed at increasing knowledge and awareness of affordable housing among City staff.
- 2.1.07 The EDD will evaluate and make recommendations regarding requiring that a portion of the City's General tax revenue generated from new businesses or industries hiring significant numbers of lower-wage workers be dedicated to the creation of lower-income housing that will serve the needs of these employers and employees.

- 2.1.09 The EDD/RDA, in conjunction with the Planning Department, shall prepare an Annual Housing Progress Report to be submitted to the City Council, relating to progress in meeting affordable housing goals and the ratio of affordability of residential construction permits and new housing construction during the previous year.

**Policy**

- 3.1 The City will seek to insure that its policies and actions do not create undue governmental constraint on the availability and affordability of housing in Moreno Valley and will seek to mitigate or remove, where possible, such governmental, as well as non-governmental, constraints.
- 3.1.01 By July of 1992, the City Planning Department and RDA will complete a review of vacant, developable land and areas with redevelopment potential to determine if sufficient area of appropriate density districts (R-10 thru R-20) is in place to meet the affordable housing needs of the City (as identified in the SCAG RHNA). If insufficient appropriately-zoned area is determined, recommendations will be made to increase the supply of appropriately zoned land available to meet identified RHNA needs.
- 3.1.02 The City/RDA in an effort to reduce the impact of escalating land costs will seek to purchase land to be retained for future affordable housing projects that reserve up to 49% of their units for lower-income households. Funds from RDA, CDBG, Inclusionary Housing In- Lieu fees, or other sources may be utilized.
- 3.1.03 The City Planning Department, in cooperation with EDD/RDA will reduce the impact of construction costs and Development Code requirements on lower-income-affordable housing by developing compensatory economic incentives (and criteria guidelines for project affordability) that will assist in reducing the overall cost of low-income housing by January of 1992.
- 3.1.04 The City will continue to subsidize new low-income rental housing development by maintaining Development Impact Fees for lower-income multi-family rental units at levels that are less than 33% of actual economic impact per unit. Development Impact Fees on single and multi-family units selling or



renting at levels above the affordability standards for median income households will gradually be increased until the fees on these higher-priced units cover 100% of the actual economic impact to the City by 1995.

- 3.1.05 The City Manager shall be given the authority to waive all or a portion of Development Impact Fees, if there is determined to be an exceptionally strong benefit in housing accessibility for lower-income and special needs groups.
- 3.1.06 The Planning Department, in cooperation with EDD/RDA, will review the amount, condition and value of vacant land currently zoned to allow the creation of new mobile home park spaces in Moreno Valley by December of 1991. If sufficient appropriate locations are not available for the creation of 800 new mobile home spaces by 1995, the Planning Department will develop a program to increase the appropriately zoned area, or to otherwise provide sufficient area for the potential development of at least 1600 additional mobile home spaces (conditional use agreements, etc) within the City's housing mix.
- 3.1.07 The City Planning Department will recommend changes to the City Development Code that will specifically include Emergency and Transitional Homeless Shelters in the uses permitted under Section 9.02.020 of the Development Code by July of 1991.
- 3.1.08 The EDD/RDA and Planning Departments will endeavor to spread the cost of required new infrastructure over the widest possible geographic area and time frame through the use of Mello-Roos districts, assessment districts, phased development plans, or other appropriate cost- sharing methods.
- 3.1.09 Conforming manufactured housing will continue to be permitted in all single family residentially zoned areas under the City's Development Code.
- 3.1.10 In order to maintain the beneficial usage of older housing for the maximum economically feasible time, the Planning and Economic Development Departments/RDA, shall develop a Zoning Transition Management Policy (ZTMP) and programs which will ensure that older affordable housing in areas where the current zoning designation is expected to result



in an ultimate change of usage remains safe, sanitary, habitable and available for occupation until such time as appropriate replacement units are available and it is necessary to remove the existing housing to make way for other conforming uses. This Policy and the programs to implement it shall be designed and adopted by October of 1991, and may include such elements as maintenance and repair subsidies, use of amendment AB1448 of the California Health and Safety Code to enforce maintenance by landlords, temporary management of units, or other programs that may be appropriate.

- 3.1.11 The Redevelopment Agency shall replace all residential units destroyed by Agency-assisted projects with units of comparable bedroom size and affordability within four years of their removal pursuant to the requirements of State Redevelopment Law. The replacement of such units shall be the first priority for the use of the RDA Low and Moderate Income Housing Fund monies.

**Policy**

- 4.1 The EDD/RDA will seek to encourage and assist the rehabilitation and maintenance of lower-income affordable housing within the City.
- 4.1.01 The EDD/RDA will coordinate with the Riverside County Housing Authority to participate under the Section 312 program when funding is available to secure the rehabilitation of substandard single family homes occupied by low-income households.
- 4.1.02 The City will continue to utilize CDBG and/or other appropriate funds to assist low-income senior citizens with minor repairs to owner-occupied homes, in conjunction with the Riverside County Housing Authority or other agencies, with the goal of assisting at least 50 households per year.
- 4.1.03 The EDD, CDBG funded Housing Specialist will develop, implement and monitor a CDBG funded Deferred Loan Housing Improvement Program to assist lower-income owner/ occupants of single-family homes in rehabilitation of substandard housing conditions, with the goal of assisting at least 10 households per year.



- 4.1.04 The EDD/RDA will work with Riverside County Housing Authority to secure and coordinate the application of HUD- financed Rental Rehabilitation programs (including the Moderate Rehabilitation program) within Moreno Valley, with the goal of rehabilitating 300 lower-income rental units by 1995.
- 4.1.05 The EDD/RDA, in cooperation with the Planning Department, will complete a survey of residential units within the Redevelopment Area(s) of Moreno Valley, identifying low- income affordable and substandard units, and then establish a program or programs that will lead to the replacement or renovation of 5% of these substandard units each year. Survey completion: July 1991; Program initiation December of 1991.

#### Policy

- 5.1 The City will seek to maximize the public benefit of programs designed to increase the accessibility of affordable housing, especially to lower-income and special-needs households, including the homeless and handicapped.
- 5.1.01 By December 31, 1991, the EDD/RDA will create requirements and control mechanisms that will reserve for lower-income owner or renter households, the benefits derived from direct or indirect incentives provided to the development of lower-income affordable housing through City programs for the longest feasible time period. These requirements and control mechanisms will be utilized in conjunction with all lower-income single family and multi-family or City-backed housing programs.
- 5.1.02 The City/RDA will seek to leverage funds from the Low- income Housing Setaside Fund and any other sources with other City, County or State programs, and/or with other private non-profit organizations in order to create the maximum number of affordable lower-income units.
- 5.1.03 In order to maximize the availability of housing to lower-income seniors and special needs individuals in Moreno Valley, the City will consider allotting a portion of its CDBG funding to support the administrative expenses and promotion of a Shared Housing Program in conjunction with the Housing Authority of Riverside County.



- 5.1.04 The EDD/RDA shall develop by July of 1992, a program, programs or method of participation in programs with other public or non-profit entities, that will assist families and individuals that are at risk of becoming homeless in an effort to prevent them from becoming homeless, through rent subsidies, job counseling, rental assistance, child care for working parents, or other programs that may be appropriate.
- 5.1.05 The City will meet the emergency shelter needs of the homeless through continued financial support and other appropriate support of local and regional programs that provide emergency shelter and other types of assistance for the homeless of Moreno Valley. Important elements of the City's program will be the assurance of adequate, appropriate transportation services to homeless shelters and support locations which may be located outside the City limits, coordination of various programs from a unified location, cooperation among various providers of homeless services, and preparation for the creation of homeless shelter facilities within Moreno Valley by the year 1998. The City Manager will designate a department to be responsible for meeting the emergency shelter needs of the homeless.
- 5.1.06 By December 1992, the City will develop a plan to mitigate any negative local effects of terminations of Federal and other types of mortgage and rental subsidies over the next 10 years.
- 5.1.07 The Redevelopment Agency shall provide that new housing units created through the use of RDA Low and Moderate Income Housing Fund monies shall be made affordable to low and very low income households in at least the proportions and for at least the time periods required by State Redevelopment Law.

#### Policy

- 6.1 The City shall affirmatively further fair housing throughout the City.
- 6.1.01 The City will continue to contract with the Riverside County Housing Authority to operate a Fair Housing Program. The EDD will ensure that a Fair Housing Program is available on an ongoing basis. The EDD shall ensure a Fair Housing Counselor is available to the citizens of Moreno Valley.

- 6.1.02 The EDD shall work with County, State and local groups to achieve fair housing goals, including increased participation in Voluntary Affirmative Marketing Agreements (VAMA) among Realtors, and affirmative advertising in area newspapers. Timetable: ongoing
- 6.1.03 The EDD will disseminate information about efforts to eliminate housing discrimination and inform residents of the Fair Housing Program and the Fair Housing Counselor.